


How did women and men react to remote Education during the pandemic? The cases of Portugal and Russia

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Abstract

Researchers from four countries conducted comparative research on the remote Education experience of Higher Education students during the Covid-19 pandemic and their return to face-to-face Education. Based on other research projects, we applied self-report questionnaires to convenience samples. This article focuses on the results for Portugal and Russia in relation to gender. Despite the differences between both countries, the findings point to the statistical predominance of women as well as their more positive attitudes toward remote Education. Factor analysis revealed that three factors converge to explain most of the variance: 1. Positive attitude in relation to remote Education, 2. Technical, psychological, and educational problems, 3. Positive attitude regarding the return to face-to-face Education. Although women have more access to Higher Education, they have lower occupational and income achievements than men.

Keywords: Higher Education. Pandemic. Remote Education. Gender. Rights.

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1 Introduction

During the Covid-19 pandemic, a group of researchers from four countries, Brazil, Mexico, Portugal, and Russia, under the aegis of the United Nations Educational, Scientific and Cultural Organization (Unesco) Chair on Youth, Education, and Society, gathered around the same concern: How did Higher Education students react to remote learning? What are the prospects for distance and hybrid learning? Based on common questions, methodological guidelines and a questionnaire were developed and adapted to the language and culture of each environment. The result was a wealth of data that was analyzed by gender. We chose two very different countries: Portugal and Russia. Portugal is one of the smallest countries in the European Union, with a Latin language and culture, whose maritime empire stretched across five continents. Russia is a transcontinental country, the largest in the world, with a wide range of natural resources and a myriad of languages and cultures across its many federal districts. The Portuguese educational system follows the Bologna Process, which divides Higher Education into three cycles: Bachelor (three years), Master (two years), and Doctorate (three years). The highest gross enrollment rate in tertiary Education for the 18–24 age group corresponds to women: in Portugal (2020), the total rate was 70.4% and 76.1% for women; and in Russia (2019), it was 86.4% and 93.2%, respectively (source: Unesco Institute for Statistics).

Meanwhile, the Russian educational system combines elements of the Bologna Process with traditional national approaches. Traditional Russian Education lasts five or six years (especially for medical programs), and graduates receive a diploma indicating that they are specialists in the science or humanities area they studied. The specialist diploma may be interpreted as a master's degree.

Despite differences, this comparison is relevant for comparative Education because we have studied similar processes in diverse cultures. Both countries faced difficulties in 2020–2021, when schools and universities closed as a measure to reduce contamination, hospitalization, and mortality. Across the world, the digital gap has been an issue, with greater or lesser levels of equipment sufficiency and adequacy, lack of computer and software skills, educational inequity, unemployment and underemployment, psychological stress, and grief.

Portugal turned to the Internet and public television broadcasting; the latter was more geared toward basic Education. Both governments passed laws in favor of remote learning. In the first two years, they experienced the great difficulties of having to suddenly adapt to a new educational modality, which was a challenge for the administration, faculty, and students. The role of women was also impacted:

mothers, whether students or not, had to stay with their children at home. Often, they had to quit their job or stop studying, leaving the man as the sole provider. In general, Higher Education students needed a proper place to study and share housework. To sum up, we could say that the transition had advantages (e.g., time savings) and drawbacks (e.g., lack of actual communication).

Portugal continued with remote learning until 2021, switching to blended learning in Higher Education, i.e., more in-person than remote. In the Russian Federation, when the pandemic situation improved, the Ministry, as well as Educational institutions, developed documents outlining how to organize the educational process in the event of a future pandemic surge. Higher Education was in a blended format until the spring of 2021, but depending on the local COVID-19 situation, it might move back to remote learning.

2 Gender and pandemic

For millennia, gender has corresponded to different rights and duties, particularly regarding the division of labor. Movements for equality have adopted critical lenses toward traditional, so-called toxic masculinity. Indeed, femininity and masculinity change in time and space. Bourdieu (1998), in a memorable book, analyzed the socialization of boys in the role of men in a historical-social process.

In both Portugal and Russia, inequalities were flagrant. In the former, women had a legal duty to obey their husbands until 1910. Women's right to vote was achieved in 1931 and was restricted to those with secondary or Higher Education. Women had to wait until 1968 to enjoy the same political rights as men. However, it was not until the 1974 Carnation Revolution, with the participation of women, that the authoritarian régime was overthrown, thus restoring freedoms.

In Russia, women's conditions were unequal until the rupture caused by the 1917 Revolution, ensuring them equal rights, including political and labor rights, in a fair recognition of their role in the revolutionary process and, later, in the Second World War (Wade, 2000). As in other countries, there is tension between legal and social facts in Portugal and Russia: laws change but the weight of traditions limits the full realization of women's rights and roles in the family and society.

The new generations, especially women, seem to find in Education a chance to climb the social ladder and achieve gender equality. In basic Education, female achievement tends to be higher. In contrast, several studies have shown that boys

tend to react to the school environment, becoming unresponsive and uncompliant. Nevertheless, women fall back in the long run, as the translation of their academic success into occupational and income achievement is hampered by the division between “blue” and “pink” curricula. According to Baudelot and Establet (2007), the former, related to leading administrative positions, science, and technology, are more promising, while a vast labyrinth of pitfalls elude gender pay laws (Duru-Bellat, 2017; Reed, 2019; Vitaud, 2022).

It is relevant to clarify that the consideration of two basic sexual orientations does not mean to underestimate the LGBTI+ population. We included this alternative in the questionnaires; however, one or two respondents marked it in each data set, so we did not include it for statistical reasons.

3 Methodology

We decided to give preference to institutions interested in the research results, which opened their doors for us after a difficult period. The Portuguese institution is a small college of Education, technologies, and administration with around 500 students, which originated from a regular school for primary teachers, founded almost fifty years ago. It is located in the Northern Region, where green landscapes suggest centuries of agrarian society. Industrialization arrived in major urban centers in the 1900s and was substantially reduced after Portugal was admitted to the European Union. The old age population increases, while the population aged 14 or less (13.2% in 2020, INE – National Institute of Statistics estimate) decreases.

The north of Portugal corresponded to the original country, approximately between the Douro and Minho valleys. Populated since pre-History, the Iberic Peninsula was invaded by Arab populations in the 8th century. Local inhabitants, supported by European Christianity, began to recover the territory before the 11th century. Portugal was one of the earliest national states on the continent, in the 12th century. Three centuries later, the country became a maritime empire.

The questionnaire to students was sent to them so they could fill them out if they agreed. Both documents were delivered preferentially on paper and personally, although in many cases they were sent by e-mail, followed by three calls. The refusal was not significant. Therefore, the results are not generalizable but suggestive, in exploratory research that can be used as a basis for further research. The pandemic student survey (PSS) is a self-report instrument consisting of 39 items with responses on a 5-point Likert scale, from 1 (Disagree) to 5 (Strongly agree). The survey assesses five dimensions of factors for dropping out: 1) Study

conditions; 2) Emotions; 3) Academic Performance; 4) Teaching strategies; and 5) Sociability (Sá; Gomes; Sousa, 2022).

The instrument was validated in Portuguese by three recognized experts in the field. A sample of 32 students attending the 1st year of the master's degree program in Early Childhood Education and the equivalent to primary school of a private Higher Education institution in Portugal and 41 students attending the master's degree program of a private university in Brazil participated in the pre-test. The instrument was applied during class in the first semester of the 2021-22 academic year. The final version included 17 items in three factors that accounted for 50% of the explained variance; the first factor accounted for 20.8%, the second 16.1%, and the third 13.1% of the variance (table 1). The Kaiser-Meyer-Olkin test reached 0.933, the Bartlett's test ($\chi^2 = 134560.617$; $df = 432$; $p < .001$), and additional fit indices were RMSEA = 0.071 CI [0.063 - 0.071] 90% confidence TLI = 0.861 BIC = -781.317).

The 113 respondents in Portugal were aged 17–51 years ($M = 21.02$; $SD = 2.215$). Of these, 71 were female (62.8%). The sample by years of Education had 75.22% of undergraduates and 24.78 in master's programs. During the pandemic, 80.53% of participants studied and did not work, whereas 19.47% worked part or full-time jobs while they studied. Among the working participants, those working remotely were 22.73%.

4 Russia

While Portugal is located between the Atlantic and the Mediterranean, Russia spans from Eastern Europe to the Pacific Ocean, boasting a beautiful mosaic of landscapes, ethnicities, and cultures. Settlement of this country also dates back to pre-History, beginning with the East Slavs in the 8th century. The word Russia derives from the Rus' people, whose exact origin is still unknown. A city that served as a passageway for many peoples and stage for countless wars, Moscow became a center for unification. In 1263, Daniel became the first Prince of Moscow, while in 1575, Ivan IV Vasilyevich was crowned the czar of all Russia. The Empire expanded many times and became a major geopolitical player from the Modern Age onward. The monarchy was overthrown in the 1917 Socialist Revolution, with Russia emerging as a superpower after the Second World War in a bipolar cold war scenario (Lieven, 2006; Perrie, 2008).

The sample consisted of 752 respondents distributed as follows: 1) Republic of Tatarstan (40,0%), in the Volga Federal Territory, on a plain 800 km from Moscow. It has several institutions of Higher Education. Tatar and Russian are

the official languages; 2) the Republic of Sakha (Yakutia), the largest republic of Russia, is located in the Far Eastern Federal Territory, Siberia, along the Arctic Ocean (19,3% dos respondents); and 3) the Permskii Krai (Region), Volga Federal District, is located in the east of the East European Plain and the western slope of the Middle Ural Mountains. These institutions have majors in almost all relevant fields.

The convenience sample comprised 78.99% females. The age of the respondents varied from 17 to 40 years ($M=20.0$; $SD=2.53$). Most of the students were at the undergraduate level, while only 2.66% were in master's programs. Of the total, 78.72% studied but did not work, 21.28% studied and worked, and 43.13% of the working group had remote activities.

5 Portugal's results

Results suggest the grouping of 4 items into factor 1 "Positive attitude to distance learning", 7 items into factor 2 "Remote learning problems", and 6 items into factor 3 "Positive attitude to returning to face-to-face learning". The first factor refers to a general positive attitude toward remote learning, the benefits of distance learning, understanding the course material, interacting with teachers and other students, and good general conditions for distance learning. The name of the factor (scale) is positive attitude toward remote learning (7 items). Reliability (McDonald's omega) was .814.

The second factor (remote learning problems) includes items about technical, psychological, and educational problems during the period of remote learning (7 items). Its reliability (McDonald's omega) reached .910. The third factor (positive attitude to returning to face-to-face Education) combined the items about the release from remote learning and the return to face-to-face learning. Results indicate the eagerness to return to face-to-face Education, the negative evaluation of remote learning and the technical and Educational issues that disappeared after the return to traditional educational practice, and the positive attitude toward returning to face-to-face Education (6 items). Its reliability, according to McDonald's omega, was .879.

Overall mental health was deeply affected by the pandemic during and after the crisis. As people are not strictly rational, as modernity assumed, feelings of solitude, stress, depression, and pessimism were and are present among a significant number of students and faculty, affecting motivation and acceptance of sudden change toward remote Education, as the literature shows in numerous countries (e.g., Gupta; Jawanda, 2020; Händel *et al.*, 2020; Oliveira *et al.*, 2023a).

In Portugal, there was a significant decrease in the use of tobacco, alcohol, and drugs among younger students, in contrast to an increase in tobacco use among older students. The use of anxiolytics increased among high achiever students (Oliveira *et al.*, 2023b). Lower levels of mental health and higher levels of addiction to the internet were also observed in a sample with 80% of female students aged 18–24 years, single or divorced who were not in a relationship and with lower academic results (Oliveira *et al.*, 2023).

Positive attitudes toward remote learning negatively correlate with remote learning problems in traditional educational practice, and positive attitudes toward returning to face-to-face Education (6 items). Its reliability, according to McDonald’s omega, was .879 (Table 1).

Table 1 - Factor loadings for each factor

| | Factor 1 | Factor 2 | Factor 3 | Uniqueness |
|--|-----------------|-----------------|-----------------|-------------------|
| I felt very lonely because I was not able to meet my friends, colleagues, and professors in person. | | | .605 | .465 |
| There are times when I don’t think I can handle the feeling of concern and loneliness during these pandemic times. | | .721 | | .544 |
| There are times when I can’t take so much stress and I want to drop out of school, in these pandemic times. | | .711 | | .521 |
| I feel a deep sense of sadness. It seems that life will never get better. | | | .685 | .550 |
| There are days when I can’t get out of bed because of discouragement. | | | .679 | .563 |
| Fortunately, I have people who support me and give me the strength to keep on studying. | | .584 | | .500 |
| We excitedly returned to face-to-face activities because we wanted to. | | | .495 | .478 |
| I preferred to continue with fully remote Education. | .502 | | | .479 |
| Because the pandemic has brought psychological struggles, psychological support is offered to students. | | .473 | | .476 |
| The atmosphere surrounding the institution and academic activities has been disturbing in this new stage. | .466 | | | .486 |
| It is better to study remotely than in person. | .713 | | | .544 |

Continue

Continuation

| | Factor 1 | Factor 2 | Factor 3 | Uniqueness |
|---|-------------|-------------|-------------|------------|
| My grades have improved with remote activities. | .654 | | | .571 |
| I participate more in remote activities than in face-to-face activities. | | | .523 | .481 |
| It is easy for me to consult with professors during remote activities. | | .513 | | .462 |
| Most remote classes are understandable. | | .577 | | .487 |
| Remote activities make it possible to learn about the subject as well as attitudes and values. | | .543 | | .472 |
| I feel that face-to-face activities allow more time to think, judge, and address values and attitudes than remote activities. | | | .502 | .489 |

Note: The highest values are in bold

Source: Field research (2023)

Some of the highest results refer to loneliness, stress, sadness, and depressive feelings, but at the same time to personal support to overcome the lockdown and pursue studies, grade improvement, higher participation, and preference for remote education.

Positive attitudes toward remote learning negatively correlate with remote learning problems and positive attitudes toward returning to face-to-face learning. At the same time, remote learning problems and positive attitude toward returning to face-to-face learning were positively correlated (Table 2).

Table 2 - Intercorrelations between attitudes toward remote learning scales

| Variable | 1 | 2 | 3 |
|--|------------------|-----------------|---|
| 1. Positive attitude toward remote learning | — | | |
| 2. Remote learning problems | -0.452*** | — | |
| 3. Positive attitude toward returning to face-to-face learning | -0.412*** | 0.419*** | — |

*** p < .001

Source: Field research (2023)

The gender of respondents had an influence on attitudes toward remote Education. Positive attitudes toward remote learning are greater among women (Table 3).

Table 3 - Correlations between gender and remote learning scales

| | Female | | | Male | | | Mann-Whitney U test | |
|---|--------|-------|-------|------|-------|-------|---------------------|-------|
| | N | Mean | SD | N | Mean | SD | W | p |
| Positive attitude toward remote learning | 113 | 3.956 | 0.712 | 113 | 3.112 | 0.822 | 52.881.000 | 0.056 |
| Remote learning problems | 113 | 2.653 | 0.814 | 113 | 2.435 | 0.824 | 51.465.200 | 0.524 |
| Positive attitude toward returning to face-to-face learning | 113 | 3.005 | 0.725 | 113 | 3.181 | 0.711 | 52.775.100 | 0.045 |

Source: Field research (2023)

Women developed more positive attitudes than men, despite their increased responsibilities for child and home care during the pandemic, that is, the traditional division of labor. In the world, some chose or were compelled by structural circumstances not to work, leaving men with the role of sole providers, which is a setback in their rights. The male gender, in turn, had more problems with remote learning, although computer engineering is considered “blue” curriculum, a career path not often chosen by women (Table 4).

Table 4 - Correlations between male students’ age and remote learning problems

| | Male 17-23 years old | | | Mann-Whitney U test | |
|---|----------------------|-------|-------|---------------------|-------|
| | N | Mean | SD | W | p |
| Positive attitude toward remote learning | 42 | 3.275 | 0.789 | 48.442.000 | 0.035 |
| Remote learning problems | 42 | 2.321 | 0.823 | 51.335.000 | 0.545 |
| Positive attitude toward returning to face-to-face learning | 42 | 2.554 | 0.662 | 51.657.000 | 0.026 |

Source: Field research (2023)

Table 5 - Correlations between male students’ age and remote learning scales

| | Male >23 years old | | | Mann-Whitney U test | |
|---|--------------------|-------|-------|---------------------|-------|
| | N | Mean | SD | W | p |
| Positive attitude toward remote learning | 42 | 3.183 | 0.889 | 51.358.000 | 0.045 |
| Remote learning problems | 42 | 3.577 | 0.898 | 43.217.000 | 0.452 |
| Positive attitude toward returning to face-to-face learning | 42 | 2.001 | 0.532 | 42.378.000 | 0.321 |

Source: Field research (2023)

When considering the age of male students, younger ones had a less positive attitude towards remote Education, more learning problems and, therefore, a more positive attitude towards face-to-face learning (table 5). The over-23 age group, perhaps because of their greater contact with technology, maybe because of work requirements, had a slightly more positive attitude towards remote Education and faced fewer problems with it, but their attitude towards face-to-face learning was less favorable than that of the 17-23 age group.

6 Russia's results

The Russian Education system distinguishes remote Education from distance Education. The former, at least in Brazil, is structured similarly to on-campus Education. The latter is mediated by technologies and is more structured, and classes are prerecorded. The survey instrument was translated and adapted to these circumstances. To determine attitudes toward distance learning, the following measures were used: "*Academic motivation scale*" questionnaire, created by Gordeeva, Sychev, and Osin (2014) and developed on the basis of self-determination theory (Deci; Ryan; 1985); and the *Academic motivation scale*, proposed by Vallerand *et al.* (1992). The questionnaire consists of 28 items with a Likert scale (1 – totally disagree; 5 – totally agree) combined into scales for intrinsic motivation (knowledge, accomplishment, and personal growth), extrinsic motivation (motivation for self-respect, introjected motivation, and external regulation), and amotivation.

The previous exploratory factor analysis showed a structure that was difficult to interpret; thus, for the next step, the following procedure was adopted. Questions (54 items) about distance learning were included in the exploratory factor analysis (maximum likelihood method with varimax rotation). Items with (1) factor loadings less than 0.4, or/and (2) included in two or more factors, or/and (3) forming a separate factor with only two items were omitted. Items included in two factors with different loadings (positive-negative) were retained if they were related to the general content of the factor. Items were excluded if their meaning was unrelated to the general content of the factor.

The final version included 31 items in three factors that accounted for 50% of the explained variance: the first factor accounted for 20.8%; the second, for 16.1%; and the third, for 13.1% of the variance (table 6). The Kaiser-Meyer-Olkin test result was 0.955, the Bartlett's test was ($\chi^2=13597.624$; $df=465$; $p<.001$), and additional fit indices were RMSEA = 0.069 CI [0.065 - 0.072] 90% confidence TLI=0.875 BIC=-783.451) (Table 6).

Table 6 - Factor loadings for each factor

| | Factor 1 | Factor 2 | Factor 3 | Uniqueness |
|--|-----------------|-----------------|-----------------|-------------------|
| Distance learning is better than face-to-face learning. | 0.672 | | -0.457 | 0.320 |
| Being on distance learning, I understand the content of disciplines (or modules) better than in face-to-face Education. | 0.666 | | | 0.388 |
| My risk assessments turned out to be during distance learning. | 0.540 | | | 0.680 |
| My place is quiet and allows me to focus on educational institutions. | 0.497 | -0.422 | | 0.565 |
| In distance learning, I participate more actively in educational activities than in person. | 0.712 | | | 0.419 |
| In distance learning, it is easier to interact with teachers/lecturers/educators than in person. | 0.719 | | | 0.393 |
| I get answers to my questions faster from teachers/lecturers/educators in distance learning than in person. | 0.662 | | | 0.504 |
| I find it more convenient to participate in distance learning than in face-to-face learning | 0.740 | | | 0.303 |
| In a remote format, it is easier to perform group work than in person. | 0.471 | | | 0.743 |
| Distance work allows you to both learn the subject and understand its values and attitudes. | 0.631 | | | 0.470 |
| The use of technology allows you to increase all processes in comparison with conditional learning. | 0.532 | | | 0.582 |
| There is no difference between face-to-face and remote classes: the teacher/lecturer/ teacher speaks and I listen. | 0.493 | | | 0.607 |
| I gladly returned to face-to-face classes. | | | 0.800 | 0.202 |
| I preferred to study exclusively remotely. | 0.547 | | -0.627 | 0.300 |
| I felt relieved to finally be able to look people in the eye and have a personal conversation. | | | 0.763 | 0.349 |
| I feel like the classes gave me some food for thought and also streamed larger meetings and meetings than distance learning. | -0.419 | | 0.592 | 0.446 |
| Electronic devices are bright and interactive, but you get tired of them. | | | 0.430 | 0.642 |
| When teaching remotely, I often focus on personal or family issues. | | 0.484 | | 0.552 |
| Due to the impossibility of having personal meetings with friends, colleagues, teachers, lecturers, and educators, I felt very lonely. | | 0.577 | 0.405 | 0.460 |

Continue

Continuation

| | Factor 1 | Factor 2 | Factor 3 | Uniqueness |
|--|--------------|--------------|----------|------------|
| It is difficult for me to understand the logic of the processes because the result is already on the display. | | 0.521 | | 0.555 |
| As the speed of information flow is high to both send and receive messages, no matter how hard I try, I cannot catch up, affecting my ability to understand and learn. | | 0.530 | | 0.528 |
| As I get closer to remote classes, I find myself more tired than I am with regular training. | | 0.450 | 0.430 | 0.538 |
| Classes using all the technologies raised a feeling of emptiness | | 0.593 | | 0.422 |
| Sometimes I feel like I can't stand the pandemic, increasing my feeling of loneliness. | | 0.628 | | 0.453 |
| There have been/are times during the pandemic when I felt/feel like I couldn't/can't take all the stress anymore and I feel like/want to drop/drop out of school. | | 0.752 | | 0.410 |
| Now I am very sad. It feels like life will never get better. | | 0.743 | | 0.440 |
| There are days when I express such discouragement. | | 0.620 | | 0.608 |
| It seems to me that I am lagging behind in my studies and not achieving my goals. | | 0.666 | | 0.527 |
| Teachers, lecturers, and educators conduct remote classes in the same way as in person | 0.540 | | | 0.606 |
| Teachers/lecturers/educators use the computer screen in the same way as a whiteboard in the classroom/classroom. | 0.413 | | | 0.745 |
| My educational institution was well prepared for the transition to distance learning. | 0.408 | | | 0.726 |

The highest values are in bold

Source: Field research (2023)

Based on the results of the factor analysis, the factors were seen as scales with different meanings. The first factor talks about a general positive attitude toward distance learning, the benefits of distance learning, understanding the course material, greater participation, faster feedback, interacting with teachers and other students, and good general conditions for distance learning. The name of the factor (scale) is positive attitude toward distance learning (15 items). Reliability (McDonald's omega) is 0.896.

The second factor includes items about technical, psychological, and educational problems during the distance learning period (11 items). This factor is named – Distance learning problems. Reliability (McDonald’s omega) is 0.9. Loneliness, emptiness, and sadness were remarkable. In comparison to Portuguese students, most of the advantages and limitations of distance Education were similar.

The third factor combined items about the release from distance learning and return to face-to-face learning. These items describe the eagerness and joy to return to face-to-face Education, the negative evaluation of distance learning and the technical and educational issues that disappeared after the return to traditional educational practice, and the positive attitude toward returning to face-to-face education (5 items).

The highest result was related to the joy of returning to on-campus classes. The name of the factor (scale) is positive attitude toward returning to face-to-face learning. Reliability (McDonald’s omega) is 0.868. Some of Virilio’s hypotheses or statements on technologies have been confirmed (Virilio, 2005). The speed of processes and presentation of results and the obstacles to understanding and comprehension, or dromocracy, reached higher values according to the philosopher.

For the following analysis, three scales (positive attitude to distance learning, distance learning problems, and positive attitude to returning to face-to-face learning) were used.

Positive attitudes toward distance learning negatively correlate with Distance learning problems and Positive attitude to returning to face-to-face learning. At the same time, Distance learning problems and Positive attitude towards returning to face-to-face learning were positively correlated (Table 7).

Table 7 - Intercorrelations between attitudes toward distance learning scales

| Variable | 1 | 2 | 3 |
|--|------------------|-----------------|---|
| 1. Positive attitude toward distance learning | — | | |
| 2. Distance learning problems | -0.574*** | — | |
| 3. Positive attitude toward returning to face-to-face learning | -0.535*** | 0.556*** | — |

*** p < .001

Source: Field research (2023)

The obtained correlations lead to the conclusion that people who have positive attitudes toward distance learning did not have many technical, psychological, and educational problems during the period of distance learning and were not eager to return to traditional (face-to-face) educational practice. Respondents who reported various problems during the distance learning period had more positive attitudes toward returning to face-to-face Education.

Positive attitudes toward distance learning are positively associated with Introjected Motivation (External) and the Social Media Integration Scale (in a positive way). All internal motivation scales were negatively correlated with distance learning problems, whereas Introjected Motivation, External Regulation, and Amotivation were positively correlated. Positive attitude toward returning to face-to-face learning is associated with all internal motivation features as well as external motivation for self-respect (Vallerand *et al.*, 1992).

The next step was finding the differences between the groups based on demographics (participant's gender) and the following grouping variables: (1) part-time or full-time work and studying/only studying during the pandemic; (2) past distance learning experience (yes/no) before the pandemic; (3) problems (yes/no) with Internet connection during the distance learning period; (4) taking care or not of children or teenagers during the pandemic; and (5) financial problems (yes/no) during the pandemic.

Positive attitude toward distance learning significantly differed between men and women (Table 8), showing that women were more positive toward distance learning. This result is similar to that found for Portugal, perhaps for the same reasons. Women also had a relatively small difference in relation to men in terms of distance Education problems and positive attitude toward in-person processes. It is noteworthy that the age median and standard deviation are very close in both samples. Therefore, it appears that gender division of labor and household commitments in older students did not affect this result (Table 8).

Table 8 - Correlations between gender and distance learning scales

| | Female | | | Male | | | Mann-Whitney U test | |
|---|--------|-------|-------|------|-------|-------|---------------------|-------|
| | N | Mean | SD | N | Mean | SD | W | p |
| Positive attitude toward distance learning | 594 | 3.259 | 0.838 | 158 | 3.103 | 0.880 | 51.774.000 | 0.046 |
| Distance learning problems | 594 | 2.653 | 0.871 | 158 | 2.717 | 0.951 | 45.464.500 | 0.547 |
| Positive attitude toward returning to face-to-face learning | 594 | 3.100 | 0.640 | 158 | 3.175 | 0.714 | 43.331.000 | 0.137 |

Source: Field research (2023)

Based on the results of the factor analysis, the factors were seen as scales with different meanings. The first factor talks about a general positive attitude toward distance learning, the benefits of distance learning, understanding the course material, interacting with teachers and other students, and good general conditions for distance learning. The name of the factor (scale) is Positive attitude toward distance learning (15 items). Reliability (McDonald’s omega) is 0.896. The second factor includes items about technical, psychological, and educational problems during the distance learning period (11 items). This factor is named – Distance learning problems. Reliability (McDonald’s omega) is 0.9. The third factor combined items about the release from distance learning and return to face-to-face learning. These items describe the eagerness to return to face-to-face Education, the negative evaluation of distance learning and the technical and educational issues that disappeared after the return to traditional educational practice, and the positive attitude toward returning to face-to-face Education (5 items). The name of the factor (scale) is positive attitude toward returning to face-to-face learning. Reliability (McDonald’s omega) 0.868.

For the following analysis, three scales (Positive attitude to distance learning, Distance learning problems, and Positive attitude to returning to face-to-face learning) were used.

Positive attitudes toward distance learning negatively correlate with Distance learning problems and Positive attitude toward returning to face-to-face learning. At the same time, Distance learning problems and Positive attitude toward returning to face-to-face learning were positively correlated (Table 9).

Table 9 - Intercorrelations between attitudes and distance learning scales

| Variable | 1 | 2 | 3 |
|--|------------------|-----------------|---|
| 1. Positive attitude toward distance learning | — | | |
| 2. Distance learning problems | -0.574*** | — | |
| 3. Positive attitude toward returning to face-to-face learning | -0.535*** | 0.556*** | — |

*** p < .001

Source: Field research (2023)

The obtained correlations lead to the conclusion that people who have Positive attitude toward distance learning did not have many (technical, psychological, and educational) problems during the period of distance learning and are not

eager to return to traditional (face-to face) educational practice. Respondents who reported various problems during the distance learning period had more positive attitudes toward returning to face-to-face Education.

Positive attitude toward distance learning are positively associated with Introjected Motivation (External) and the Social Media Integration Scale (in a positive way). All internal motivation scales were negatively correlated with distance learning problems, whereas Introjected Motivation, External Regulation, and Amotivation were positively correlated. Positive attitude toward returning to face-to-face learning is associated with all internal motivation features as well as external motivation for self-respect (Vallerand *et al.*, 1992).

The next step was to find the differences between the groups based on demographics (participant's gender) and the following grouping variables: (1) part-time or full-time work and studying/only studying during the pandemic; (2) past distance learning experience (yes/no) before the pandemic; (3) problems (yes/no) with Internet connection during the distance learning period; (4) taking care or not of children or teenagers during the pandemic; and (5) financial problems (yes/no) during the pandemic.

Positive attitude toward distance learning significantly differs between men and women (Table 10), showing that women are more positive toward distance learning.

Table 10 - Correlations between gender and distance learning scales

| | Female | | | Male | | | Mann-Whitney U test | |
|---|--------|-------|-------|------|-------|-------|---------------------|-------|
| | N | Mean | SD | N | Mean | SD | W | p |
| Positive attitude toward distance learning | 594 | 3.259 | 0.838 | 158 | 3.103 | 0.880 | 51.774.000 | 0.046 |
| Distance learning problems | 594 | 2.653 | 0.871 | 158 | 2.717 | 0.951 | 45.464.500 | 0.547 |
| Positive attitude toward returning to face-to-face learning | 594 | 3.100 | 0.640 | 158 | 3.175 | 0.714 | 43.331.000 | 0.137 |

Source: Field research (2023)

7 Conclusion

These surveys converged on mental health difficulties during and after the Covid-19 pandemic. Although the Enlightenment, in modern times, pointed

to reason as the means to empirically detect and explain facts, the Scientific Revolution of the seventeenth century proposed that students and teachers were oriented by reason. According to Touraine (1992), the school was the rationalization institution of modernity. In contrast, it is relevant to associate reason and emotions to reach the student body; otherwise, communication will likely fail. On the contrary, motivations, feelings of discomfort, and pleasure in relation to technologies are intertwined, without which one cannot learn, and one eagerly wants to return to on-campus Education. According to Charlot (1996, 2021), as observed mainly in basic Education in the French urban outskirts, in our interpretation, if students are unwilling to learn, they will probably not learn. This is why teachers need the art of encouraging and motivating students, in a relational occupation, to awaken in them the desire for knowledge. Moreover, according to Charlot (1996, p. 50), when summarizing the feelings of high school students, “the good teacher is the one who talks to us”. Lira and Gomes (2018) reached similar conclusions in a Brazilian outskirts community, when they confirmed the importance of the pedagogy of dialogue. In other words, if a learning institution fails to captivate students, reason might be relevant, but it will not be enough. The whole process combines thinking, feeling, and preferably acting. Reacting to modernity’s reason, Romanticism placed emphasis on emotion. In a pendular movement, the period of realism–naturalism followed, with other displacements succeeding one another, no longer in a linear sense but in the complexity of networks. The decline of institutions, addressed by Touraine (1997) and Dubet (2002) in post-modernity, results from de-modernization in other historical and social contexts. This is why school knowledge, in view of the cultures of adolescence and youth, is undergoing profound changes, in which affectivity materializes in the success of the charismatic teacher, instead of the bureaucratic one, with classical Education. The nerve crossing these facts is the meaning of life and school, where life is learned and permeated by vivid emotions. The crisis of meaning, let us remember, lies in the collapse of the theological visions of the Middle Ages imposed by modernity. New perspectives advanced on cosmology and other areas, leading, for example, to Galileo being sentenced to life imprisonment and Copernicus’ being reluctant to publish his work on heliocentrism. As there ceases to be a single answer to questions such as “why and what do I live for?” and “where am I going?” a complex labyrinth of choices and questions emerges. Freedom is hard!

As for gender, from the point of view of equality, which is the goal of the United Nations and subscribed by member countries, evidence points to a setback in terms of women’s and girls’ rights. Women and girls, in addition to being biological entities, are shaped in social contexts where stereotypes prevail: they are fragile, less capable, dependent on the man, home and family caregivers, those with lower

wages, and those who can or should yield to greater imperatives. The literature shows that they retreated to their homes, assuming the responsibility of home schooling when schools closed and ensuring the safety of their families, while being more vulnerable to violence, along with girls and children in general. It is no coincidence that the rates of domestic violence against women increased in several countries during the pandemic. A survey in Switzerland, although it does not confirm this growth in general in the country, shows an increase in violence among younger people, corroborating our research data regarding the impact of isolation during the pandemic on younger age groups (Baier; Biberstein; Kliem, 2022).

However, this study found, in both Portugal and the Russian Federation, a significant relationship between remote and open Education and gender. Women showed more positive attitudes when faced with abrupt change. In Portugal, younger men had a less positive attitude. We may be facing emerging positive masculinity and residual hegemonic masculinity (Baguant; Mariaye; Msibi, 2023). Furthermore, as women probably have identified Education and freedom, their motivation may induce a more positive attitude toward distance Education than men.

The samples are not representative of Higher Education students in each country, but they are sufficient for the Mann-Whitney test. Both men and women may face isolation issues during pandemic confinement. Remote learning can be more difficult for those who live alone or away from their friends and family. Furthermore, having no interaction with classmates and faculty members can lead to feelings of loneliness and lack of social connection in both contexts.

Further studies could compare the ratio of female and male students in specific courses (“blue” and “pink”), the distribution of academic and professional opportunities between men and women, the experiences of women in relation to harassment and discrimination, and the effectiveness of gender equality policies and programs. Additionally, it could be worth exploring specific issues related to remote learning and educational technologies, including accessibility for students with physical or intellectual disabilities, availability of technical support for students and teachers, and obstacles to equal socioeconomic participation.

Como homens e mulheres reagiram à educação remota durante a pandemia? Os casos de Portugal e Rússia

Resumo

Pesquisadores de quatro países efetuaram uma pesquisa comparada com estudantes de nível superior sobre a sua experiência de Educação remota na Covid-19 e seu retorno à Educação presencial. Fundamentada em outras investigações sobre o assunto, aplicaram-se questionários auto respondíveis a amostras de conveniência. Aqui se destacam os resultados quanto ao gênero em Portugal e na Rússia. Apesar das grandes diferenças, as verificações apontam para a predominância numérica das mulheres e suas atitudes mais positivas em face da Educação remota. Na análise fatorial, três fatores convergem para explicar a maior parte da variância: 1. Atitude positiva em relação à Educação remota, 2. Problemas técnicos, psicológicos e educacionais, 3. Atitude positiva ante a retomada da educação presencial. Embora as mulheres tenham maior acesso à Educação Superior, alcançam menores conquistas ocupacionais e de renda que os homens.

Palavras-chave: Educação Superior. Pandemia. Educação remota. Gênero. Direitos.

¿Cómo reaccionaron hombres y mujeres a la Educación remota durante la pandemia? Los casos de Portugal y Rusia

Resumen

Investigadores de cuatro países realizaron investigaciones comparativas sobre la experiencia educativa a distancia de los estudiantes de Educación Superior durante la pandemia Covid-19 y su retorno a la Educación presencial. Sobre la base de otros proyectos de investigación, aplicamos cuestionarios de autoinforme para facilitar las muestras. Este artículo se centra en los resultados de Portugal y Rusia en relación con el género. A pesar de las diferencias entre ambos países, los resultados indican el predominio estadístico de las mujeres, así como sus actitudes más positivas hacia la Educación a distancia. El análisis factorial reveló que tres factores convergen para explicar la mayor parte de la varianza: 1. Actitud positiva en relación con la Educación a distancia, 2. Problemas técnicos, psicológicos y educativos, 3. Actitud positiva con respecto al retorno a la Educación presencial. Aunque las mujeres tienen más acceso a la Educación superior, tienen logros laborales y de ingresos más bajos que los hombres..

Palabras clave: Educación Superior. Pandemia. Educación a Distancia. Género. Derechos.

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Data: The dataset supporting the results of this study is not publicly available due to institutional choices. Requests for access to data can be made directly by email: Portugal (susanaemiliasa@gmail.com) and Russia (aleksander.veraksa@gmail.com).

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