

Article

Workplace Flexibility and Participation in Adult Learning

Marko Radovan 

Faculty of Arts, University of Ljubljana, 1000 Ljubljana, Slovenia; marko.radovan@ff.uni-lj.si

Abstract: Understanding the relationship between job characteristics and participation in adult learning is essential for fostering sustainable development. This study explores how employment factors such as job characteristics, work autonomy, and required skills influence participation in adult learning, which is important for economic resilience and social cohesion. The research utilizes data from the 2021 Labor Force Survey (LFS) in Slovenia, examining adults aged 25–64 and their participation in formal and non-formal education. Findings reveal significant correlations between employment status, type of contract, company size, and adult learning participation. Specifically, individuals in larger companies and those with flexible working hours are more likely to engage in educational activities. Additionally, the ability to work from home is strongly associated with higher participation rates in adult education, highlighting the role of flexible work arrangements in promoting lifelong learning. These insights underscore the importance of creating supportive job environments and equitable access to educational resources to achieve sustainable economic growth and reduce inequalities. By addressing the factors that influence adult learning, policymakers and organizations can develop strategies to enhance workforce adaptability and lifelong learning, ultimately contributing to the broader goals of sustainable development.

Keywords: workplace characteristics; participation in adult education; sustainable development; flexible work schedules



Citation: Radovan, M. Workplace Flexibility and Participation in Adult Learning. *Sustainability* **2024**, *16*, 5950. <https://doi.org/10.3390/su16145950>

Academic Editor: Eric C. K. Cheng

Received: 10 June 2024

Revised: 25 June 2024

Accepted: 11 July 2024

Published: 12 July 2024



Copyright: © 2024 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

In the context of an evolving and competitive labor market, the importance of adult learning in enhancing employment opportunities is important. The employment landscape has undergone significant transformations in recent years. As Bessen [1] highlights, rapid technological advancements and demographic shifts have redefined workplaces, rendering them dynamic and continuously evolving. This evolution has been further accelerated by the COVID-19 pandemic, which caused unprecedented disruptions in the labor market, leading to profound economic changes and a heightened demand for adult learning [2]. Adult education has thus emerged as a crucial mechanism for retraining and upskilling individuals across various sectors, serving a dual purpose: keeping pace with the changing world and empowering individuals to thrive. Scholars such as Boeren et al. [3], Košmerl [4], and Popescu [5] have strongly advocated for the importance of adult education. From a societal perspective, promoting participation in adult learning has far-reaching implications. It contributes to a more skilled and competitive workforce, which in turn stimulates economic growth, fosters innovation, enhances social cohesion, and supports personal development.

The relationship between adult education and sustainability is significant. Adult education contributes to sustainability by fostering a skilled workforce capable of adapting to changing economic demands, promoting social equity through accessible education, and encouraging lifelong learning, which is essential for continuous adaptation and innovation [6]. It is important for education to focus on values, teamwork, and human behavior to achieve sustainability goals, helping society move towards a greener future [7,8]. Charatsari et al. ([9] stress that participation in adult education programs focused on sustainability boosts awareness, empathy, and pro-environmental behaviors. Investing in

adult education helps people continually improve their skills, innovate, and adapt to changing economic conditions [10]. These programs also promote sustainable development, create jobs, foster self-reliance, and ensure fair access to justice. Emphasizing lifelong and broad learning experiences in both formal and informal settings is key to developing the knowledge, skills, attitudes, and behaviors needed for sustainability throughout life [11].

This study aims to unravel the complex interplay of work-related factors that influence participation in adult learning. These factors include the type of work, organizational size, and working hours. By analyzing these employment characteristics, we seek to uncover trends that can inform policy measures designed to promote lifelong learning. Our goal is to provide insights that will help shape policies to support continuous and sustainable education that contributes to a more resilient and adaptable workforce. This, in turn, fosters sustainable development by ensuring that the workforce remains capable of meeting the evolving demands of the labor market and contributing to the overall well-being of society.

2. Literature Review

2.1. *Job Characteristics and Participation in Adult Learning*

Understanding the factors associated with employment characteristics and participation in adult learning is crucial for promoting sustainable development. Lifelong learning is intricately linked to economic growth and social aspects such as employability, career advancement, and development [12–14]. Notably, adult participation in learning varies significantly across occupational groups, with job characteristics like complexity, autonomy, and requisite skills playing pivotal roles in determining learning opportunities. Sustainability, in this context, refers to the capacity to maintain and improve economic and social systems over time. Enhancing adult learning contributes to sustainability by fostering a more educated and adaptable workforce, which is essential for long-term economic resilience and social cohesion [15]. By facilitating continuous skill development, adult learning supports sustainable economic practices, reduces inequalities, and promotes inclusive growth [6].

Income and employment status significantly influence participation in adult education. Higher-income individuals can better afford the financial costs of educational programs, acquire necessary learning materials, and offset potential income losses due to time spent in education. Financial stability often correlates with job stability, leading to increased employer support through educational funding and flexible working hours [16]. These dynamics are essential for creating equitable access to lifelong learning opportunities, thus contributing to social sustainability.

Job characteristics, such as the level of difficulty, employee independence, and required skills, critically impact learning opportunities. Research indicates that job demands, and autonomy positively influence learning processes, resulting in favorable outcomes [17–19]. Autonomy and financial benefits at work promote employees' learning intentions, while an organizational climate fostering autonomy optimally utilizes employees' skills [17]. Encouraging adult education participation, as highlighted by the OECD, has a broader social impact by cultivating a more competent and competitive labor force [13].

This research underscores the critical role of adult learning in promoting sustainability. By identifying and addressing the factors influencing participation in adult education, policymakers and organizations can develop strategies that support continuous learning and skill development. This, in turn, enhances economic sustainability through a more capable workforce and social sustainability through reduced inequality and increased social mobility. Consequently, fostering adult learning is essential for achieving the broader goals of sustainable development.

2.2. *Flexible Work and Its Implications for Adult Learning*

The COVID-19 pandemic and other recent events have accelerated the adoption of various forms of teleworking, particularly working from home, profoundly impacting adult learning. While teleworking presents challenges for individuals and employers, it

also creates opportunities for adult education by disrupting traditional approaches to work and learning [20]. Although teleworking is not the only form of flexible work (others include shift work, part-time work, etc.), it has recently become the most prominent due to the pandemic, spurring debates about transforming the work practices of certain occupational profiles, especially office workers, knowledge workers, and IT professionals [21–24]. Flexible working arrangements provide employees with greater flexibility in managing their time between work and educational tasks, thereby promoting sustainability. For instance, workers can effectively utilize the time they would normally spend commuting to take online courses, enhancing their skills and contributing to sustainable career development [25]. This shift not only supports individual growth but also contributes to sustainable economic and social systems by fostering a more adaptable and continuously learning workforce [6,15].

However, flexible working can also be a challenge for individuals. Despite the greater flexibility, teleworkers may have difficulty defining the boundaries between work and private life. The combination of work and private life can lead to ‘schedule creep’, where work commitments interfere with private life. This process, especially if it is long-term, can have negative effects on an individual’s psychological well-being, stress, and motivation [26,27].

2.3. Research Objectives

The main objective of this research is to examine the complex relationship between employment characteristics and adult participation in learning in the Slovenian labor market, with a focus on sustainability. By analyzing data from the Labor Force Survey (LFS) 2021, this study has two main objectives:

- To determine how job characteristics are related to adult participation in formal and non-formal education: This objective includes a detailed analysis of how specific workplace-related factors such as type of employment (full-time vs. part-time), type of employment contract (permanent vs. fixed-term), company size, and industry sector influence the propensity of adult learners to engage in educational activities. This objective aims to gain insights into which employment characteristics are most conducive to lifelong learning and how these can be optimized to increase adult participation in education.
- To assess the role of workplace flexibility, including teleworking, in facilitating adult learning participation: This objective focuses on understanding how recent shifts towards more flexible working arrangements, such as teleworking, have impacted adult learning activities. We will examine whether there is a significant relationship between the flexibility of work arrangements and the likelihood of adults engaging in learning activities. The analysis will consider different forms of workplace flexibility, including but not limited to teleworking, flexible working hours, and job-sharing arrangements, to identify how these factors potentially promote or hinder continuous learning. This objective is particularly important given the change in work practices brought about by technological advances and the societal trend towards a more dynamic work environment.

Research questions:

1. How are workplace characteristics, including employment status, type of contract, etc., correlated with participation in adult education?
 - Hypothesis 1: Individuals with fixed-term contracts are more likely to participate in adult education compared to those with permanent contracts.
 - Hypothesis 2: Full-time employees are more likely to engage in adult education compared to part-time employees.
 - Hypothesis 3: Employees in larger organizations are more likely to participate in adult learning activities than those in smaller organizations.

2. Is there a substantial difference in adult education participation rates regarding employment flexibility (e.g., flexible working hours, working on weekends, working from home)?
 - Hypothesis 4: Employees with flexible working hours are more likely to participate in adult education compared to those with fixed working hours.
3. How are the educational level, type of employment, and economic activity of the company related to the possibility of working from home?
 - Hypothesis 5: Employees with non-traditional work schedules are less likely to participate in adult education compared to those with traditional work schedules.
 - Hypothesis 6: Individuals who have the option to work from home are more likely to participate in adult education than those who do not have this option.

3. Materials and Methods

3.1. Data Source

For the purposes of this study, we have used the 2021 questionnaire of the “Labor Force Survey” (hereafter LFS) [28]. EUROSTAT monitors the participation of adults in education and training through two questionnaires, the LFS and the Adult Education Survey (hereafter AES). The LFS measures the participation of adults in education and training in the last four weeks or the last twelve months prior to the survey and is conducted annually, while the AES measures the participation of adults in education and training in the last four weeks or the last twelve months prior to the survey. LFS is the most exhaustive governmental household survey conducted in Slovenia. Its primary objective is to gather information regarding the state and fluctuations within the Slovenian labor market. This survey yields data concerning the magnitude, composition, and attributes of both the active labor force and the non-participating populace in Slovenia. The unit of analysis in the LFS is an individual residing in Slovenia, specifically a member of a private household. This analysis is stratified across various dimensions, including economic activity, gender, age categories, employment conditions, occupational classifications, and fields of work within regional contexts of cohesion.

3.2. Sample

The analysis refers to a sample of 25–64-year-olds with regard to their participation in formal and non-formal education in the last 12 months. Therefore, only data from wave 1 of the ADS 2021 ($n = 18,591$) were analyzed. In the ADS, the unit of observation is the population of Slovenia living in private households. The sampling frame was based on the latest available monthly data from the Central Population Register (CRP). The sampling design was a stratified systematic simple random design. In selecting the units, the Statistical Office of the Republic of Slovenia stratified by settlement type and statistical region. For each selected adult, all household members were interviewed. For our analysis, we restricted ourselves to people aged 25–64 and used variables on formal and non-formal education in the last 12 months.

3.3. Procedure

The statistical analyses were conducted in June of 2023 at the Statistical Office of the Republic of Slovenia (SORS), as the LFS database is protected. SORS provides researchers with access to data for research purposes in a secure environment (the “SORS Secure Room”). The individual microdatabases, which can be accessed in the secure room or remotely, are prepared by SORS for researchers by removing the identifiers from the data. However, only statistically protected microdata derived from certain small sample surveys are made available to them via the SORS online file repository. SORS also allows researchers to use aggregated data that is not statistically protected. In addition, SORS also provides researchers with the individual data required to conduct the survey (person’s first and last name, place of residence, year of birth, and gender), but only to a limited extent, i.e.,

in the form of a so-called person sample. For the statistical surveys carried out by SORS, researchers also have access to questionnaires and methodological explanations for these surveys. Selected examples of exploratory analyses of national statistics data are available on the website. The researcher must announce his/her arrival in the safe room one day in advance by e-mail. The researcher will receive an attendance registration card when visiting the institute. This card is used to register arrivals and departures. The researcher undertakes not to bring any devices with which data or databases (laptops, smartphones, etc.) can be taken into the secure room.

4. Results

4.1. Employment Status, Job Type, Company Size, and Adult Learning

To explore the complexity of educational participation, we first present the results of our study of individuals' participation in formal and non-formal learning in the last 12 months. Only statistically significant correlations ($p < 0.001$) are presented in the results, and Cramer's coefficient (V) values are shown in parentheses in the table. It is important to note that the results in this and other tables reflect correlation and do not imply causality. There could be numerous causes for these correlations, and factors not considered in this study could also have an influence.

The data in Table 1 reveals that adults with fixed-term contracts (contracts that have an end date) tend to engage more in educational activities. More specifically, 44.4% of them participate in some kind of education; in contrast, those with permanent contracts (which are open-ended and flexible) have a lower level of participation in education at 39.1%.

Table 1. Participation in adult education in the last 12 months by activity, employment status, type of employment, and company size.

Variables	Percent
Type of job contract ($V = 0.03$)	
Permanent job	39.1
Fixed-term job	44.4
Working hours ($V = 0.02$)	
Full-time job	38.9
Part-time job	35.3
Company size ($V = 0.13$)	
1 to 9 employees	24.9
10 to 49 employees	32.1
50 to 249 employees	37.4
250 or more employees	43.4

Source: LFS, 2021. Note: $p < 0.001$ for all comparisons. V = Cramer's V .

The available data also reveal a subtle but significant difference between the type of employment contract (full vs. part-time) and its correlation with participation in adult education. A participation rate of 38.9% indicates that full-time employees appear to be slightly more likely to participate in educational activities in comparison with part-time employees at 35.3%. The correlation is highly significant ($p < 0.001$) but insignificant ($V = 0.02$) according to Akoglu's [29] classification. In his classification, a correlation greater than 0.25 is categorized as very strong; between 0.15 and 0.25 as strong; between 0.11 and 0.15 as moderate; between 0.06 and 0.10 as weak; and between 0.01 and 0.05 as an insignificant correlation. The hypothesis that individuals with fixed-term contracts are more likely to participate in adult education compared to those with permanent contracts is confirmed (H1), as evidenced by the higher participation rate of 44.4% for fixed-term contract holders versus 39.1% for permanent contract holders. On the other hand, the hypothesis that full-time employees are more likely to engage in adult education compared to part-time employees is not confirmed (H2), as the difference in participation rates (38.9% for full-time and 35.3% for part-time employees) is statistically significant but the correlation is insignificant ($V = 0.02$).

A remarkable trend becomes clear when analyzing the relationship between the size of a company and the availability of learning opportunities for adults. Essentially, it can be observed that employees in larger organizations are more likely to participate in learning activities than their counterparts in smaller organizations. The discrepancy between the participation rates of employees in so-called “micro-enterprises” with 1–9 employees (24.9%) and those in larger companies with 250 or more employees (43.4%) is evident. The Cramer coefficient ($V = 0.13$) in this case indicates a moderately strong correlation between organization size and the likelihood of adult learning. The hypothesis that employees in larger organizations are more likely to participate in adult learning activities than those in smaller organizations is confirmed (H3), with a higher participation rate in larger organizations compared to smaller ones.

4.2. Employment Flexibility and Lifelong Learning Engagement

Our research also included an examination of the impact of different modalities and employment structures on participation in adult learning. As mentioned in the introductory chapter, empirical evidence suggests that both working time arrangements and flexible working arrangements can have an impact on an individual’s propensity and incentive to engage in educational activities. The data presented in Tables 2 and 3 show the participation of adults in formal and non-formal learning in the last 12 months in education based on their occupational characteristics. Again, it should be noted that all the correlations shown in this table are statistically significant ($p < 0.001$).

Table 2. Adult education participation by variable working hours.

Type of Work	Percent
Flexible hours	58.5
Fixed hours	33.3

Source: LFS, 2021. Note: $p < 0.001$; Cramer’s $V = 0.22$.

Table 3. Adult education participation by non-traditional work schedules (%).

Work Schedules	Often	Sometimes	Never
Shift work ($V = 0.10$)	32.0	30.7	42.8
Working in the evening ($V = 0.03$)	39.3	36.0	36.0
Working at night ($V = 0.03$)	36.4	35.3	39.1
Working on Saturday ($V = 0.10$)	32.5	33.7	43.2
Working on Sunday ($V = 0.10$)	33.6	43.3	38.2
Working from home ($V = 0.22$)	60.1	57.5	32.9

Source: LFS, 2021. Note: $p < 0.001$ for all comparisons. V = Cramer’s V .

The results in Table 2 confirm the hypothesis that employees with flexible working hours are more likely to participate in adult education compared to those with fixed working hours (H4), as indicated by the significantly higher participation rate (58.5% for flexible hours versus 33.3% for fixed hours) and a strong association ($V = 0.22$). This indicates that the type of work schedule is a substantial factor influencing whether adults participate in educational activities, with flexible hours being associated with higher participation rates.

Table 3 presents the participation rates of adults in education or training activities in relation to their employment schedules. Respondents answered on a scale of “Never”, “Sometimes”, “Often”.

For those engaging in shift work, participation rates are relatively evenly distributed, with 32.0% participating often, 30.7% sometimes, and 42.8% never, and a weak association (Cramer’s $V = 0.10$). Evening workers show a similar distribution across categories, with 39.3% participating often and an equal 36.0% participating sometimes or never, reflecting an insignificant association ($V = 0.03$). Night workers also display minimal variation, with 36.4% participating often, 35.3% sometimes, and 39.1% never, again with an insignificant correlation ($V = 0.03$). Saturday workers have participation rates of 32.5% often, 33.7%

sometimes, and 43.2% never, with a weak association ($V = 0.10$). Sunday workers exhibit a somewhat different pattern, with a higher rate of participation sometimes (43.3%) compared to often (33.6%) or never (38.2%), yet still maintaining a weak association ($V = 0.10$). Notably, those working from home have the highest rates of often (60.1%) and sometimes (57.5%) participation in adult education and the lowest rate of never participating (32.9%), indicating a moderate association ($V = 0.22$). All these associations are statistically significant ($p < 0.001$), emphasizing the clear differences in adult education participation among various non-traditional work schedules. The results indicate that working from home is associated with the highest participation in adult education, showing a moderate correlation, while other non-traditional work schedules demonstrate weaker or insignificant associations with adult education participation. The hypothesis that employees with non-traditional work schedules are less likely to participate in adult education compared to those with traditional work schedules is therefore not confirmed (H5), as participation rates are relatively evenly distributed across different non-traditional work schedules with weak or insignificant correlations.

4.3. Working from Home: Correlations with Education, Job Type, and Industry

Our research so far has revealed a significant determinant for enhancing adult participation in education: the possibility to work from home. That is why we have performed an additional analysis to have a more comprehensive understanding of this phenomenon.

In Table 4, we compare the educational level, type of employment, and sectors by economic activity of people who have the advantage of being able to work from home. Respondents answered on a scale of “Never”, “Sometimes” and “Often”. The table shows only the proportions of adults who answered “Sometimes” or “Often”.

Table 4. Remote work opportunities by education, employment type, and economic sector (%).

Variables	Often/ Sometimes
Educational attainment ($V = 0.21$)	
ISCED 0–2	8.4
ISCED 3–4	11.6
ISCED 5–8	35.9
Type of employment ($V = 0.17$)	
Employee	18.9
Self-employed	41.5
Free-lance job, Farmer	45.5
Economic activity ($V = 0.24$)	
Information and communication	52.6
Real estate activities	43.1
Education	42.2
Financial and insurance activities	42.1

Source: LFS, 2021. Note: $p < 0.001$ for all comparisons. V = Cramer’s V .

Our results demonstrate a strong correlation between education level and the flexibility of working hours ($V = 0.21$). Adults with higher education (ISCED 5–8) have significantly more opportunities to work remotely, with 35.9% doing so often or sometimes, while those with lower education levels (ISCED 0–2) rarely have this option, with 91.6% stating it is not possible. Freelancers, farmers, and self-employed individuals show a notable likelihood of working from home ($V = 0.17$), with 45.5% of freelancers and 41.5% of the self-employed working remotely frequently or occasionally, compared to just 18.9% of the general workforce. The correlation is strongest with economic activity ($V = 0.24$), with 52.6% of employees in the information and communications sector, 43.1% in real estate, 42.2% in education, and 42.1% in finance and insurance working from home. Conversely, industries like catering, transport and storage, and manufacturing are resistant to remote work due to the nature of their tasks, physical presence requirements, technological infrastructure, and

legal regulations. The hypothesis that individuals who have the option to work from home are more likely to participate in adult education than those who do not have this option is confirmed (H6), with a significantly higher participation rate for those who can often or sometimes work remotely.

5. Discussion

5.1. Workplace Characteristics and Their Relationship to Adult Education Participation

The results presented in Table 1 provide valuable insights into the relationship between various employment characteristics and participation in adult education. These findings have important implications for understanding the dynamics of lifelong learning in the context of different employment relationships and organizational structures. The data show that adults with fixed-term contracts are more likely to participate in educational activities than adults with permanent contracts. This finding is consistent with previous research suggesting that people on fixed-term contracts may be more motivated to engage in continuous learning to improve their employability [30]. While the correlation is statistically significant, it is weak, suggesting that while there is a link, other factors may also play an important role in participation in adult learning. This trend could be attributed to various factors, such as job insecurity, where temporary employees see a greater need to upskill or retrain to secure future employment opportunities [31], or that companies are more inclined to offer training opportunities to temporary employees to bring them up to speed quickly [32]. Some studies also attribute this to individual motivation: those in temporary positions may be more proactive in seeking learning opportunities to improve their career prospects [33].

Contrary to our hypothesis, the data shows little difference in participation rates between full-time and part-time employees. This finding suggests that working hours may not have a strong influence on participation in adult learning and challenges some previous assumptions about the relationship between working hours and lifelong learning. For instance, a meta-analytic review conducted by Joung et al. [34] indicates that full-time employees are more likely to receive and participate in workplace training due to their more stable employment status and the benefits associated with full-time roles. On the other hand, our study suggests that time availability may not be the primary factor influencing participation in adult learning and that part-time workers may be equally motivated to engage in learning activities, possibly to improve their employment prospects or to make the transition to full-time employment.

The study also shows a moderate correlation between company size and participation in adult learning activities. Employees in larger organizations have significantly higher participation rates than employees in smaller companies. This finding is consistent with previous research showing that larger organizations tend to offer more formal learning opportunities [35]. As previous studies have shown, several factors may contribute to this trend. Larger companies often have more financial resources to invest in employee development programs [36]. In addition, it may be more cost-effective for larger companies to offer training programs to a larger number of employees [37]. Larger organizations are more likely to have established HR departments and formal training policies [38], and may offer more diverse career paths that require continuous learning and development [39].

5.2. Differences in Adult Education Participation Rates Based on Employment Flexibility

The findings of this study provide valuable insights into the relationship between employment flexibility and commitment to lifelong learning. The results reveal significant correlations between different employment relationships and participation in adult learning and highlight the complex interplay between work structures and continuous learning. This finding is consistent with previous research suggesting that flexible working arrangements can have a positive impact on employee engagement, but it is also a contradictory concept since it can have positive or negative consequences [40,41]. The higher participation rate of those who have flexible working hours could be due to greater autonomy in work–

life balance, which allows individuals to manage time for educational activities more effectively [42].

In contrast to our hypothesis (H4), the results presented in Table 3 do not support the notion that employees with non-traditional working hours are less likely to participate in adult education compared to employees with traditional working hours. Instead, the data show a more nuanced picture, with participation rates varying across the different non-traditional working arrangements. This finding confirms recent research by Wang et al. [43], highlighting the potential benefits of remote working for career development and learning opportunities. The weak or insignificant associations observed for other non-traditional work schedules (shift work, evening work, night work, and weekend work) suggest that these arrangements do not necessarily hinder participation in adult learning. This challenges some previous assumptions about the negative impact of non-traditional working hours on learning participation [44]. These findings have important implications for both organizational practice and policy in the context of lifelong learning and sustainable development. The strong positive correlation between flexible working hours and participation in adult learning highlights the potential of flexible working arrangements to promote a culture of continuous learning [45]. Organizations and policy makers should consider promoting and facilitating flexible work options as a means to improve the skills and adaptability of the workforce, which are critical for sustainable economic development [46]. The high participation rates among those working from home also highlight the potential of remote working arrangements to support lifelong learning initiatives. The increasing prevalence of teleworking can provide new opportunities for the integration of work and learning, potentially contributing to more sustainable and inclusive educational practices [47].

However, the relatively even distribution of participation rates across other non-traditional forms of work suggests that the relationship between work arrangements and learning readiness is complex. This complexity requires nuanced approaches to the design of workplace learning initiatives and policies that take account of different work patterns and individual needs [48].

5.3. Determinants of Remote Work Opportunities in Various Employment Contexts

The findings presented in Table 4 provide valuable insights into the relationship between the ability to work from home and various socioeconomic factors, including education level, employment type, and economic sector. The strong correlation between education level and work schedule flexibility underscores the education gap in telecommuting opportunities. This finding is consistent with Eurofound's previous research, suggesting that higher levels of education are associated with greater job flexibility and autonomy [49]. This educational gap in remote working opportunities may exacerbate existing inequalities in the labor market. With the increasing prevalence of remote working, those with higher levels of education may have better access to flexible working arrangements, which can lead to better work–life balance and more opportunities for continuous learning [50]. Conversely, those with lower levels of education may have limited access to such benefits, which could widen the skills gap over time.

The moderate correlation between types of employment and remote working opportunities shows interesting patterns. Freelancers, farmers, and the self-employed are more likely to work from home than traditional employees. This finding confirms existing studies that suggest that non-traditional employment relationships often offer greater flexibility in terms of work location [45]. The higher prevalence of remote working among the self-employed and freelance workers may be attributed to the nature of their work, which often allows for greater autonomy in choosing where to work. This flexibility could potentially facilitate greater participation in lifelong learning activities, as these workers have more control over their schedules [51].

The strongest correlation is observed between economic sectors and remote working opportunities. Industries such as information and communication, real estate, education,

finance, and insurance have high rates of remote working. This is consistent with Sostero's et al.'s [52] findings that suggest that knowledge-intensive sectors tend to favor remote work arrangements. In contrast, sectors such as hospitality, transportation and storage, and manufacturing are more averse, likely due to the nature of the tasks, physical presence requirements, technological infrastructure, and legal regulations. This sectoral disparity in remote work opportunities may have implications for workforce development and lifelong learning strategies across industries.

Several factors may contribute to this increased participation in adult learning among remote workers. One of these factors is certainly time flexibility. Remote work often allows for more flexible scheduling, so workers may be able to schedule time for educational activities more easily [53]. Remote work is also associated with less time spent commuting, reduced fatigue, and increased productivity [54]. Time saved could be converted into learning activities. Some studies also argue that remote workers develop better digital skills through the use of ICT, which could facilitate the use of online learning platforms [52], and that they are more autonomous, which can promote a mindset conducive to self-directed learning [43].

5.3.1. Limitations of the Study

While our research offers a robust and comprehensive view of the labor market in Slovenia, particularly in terms of educational engagement and employment conditions, its scope and generalizability are limited by demographic and geographic focus and the nature of self-reported data. A significant limitation is the potential bias in self-reported data, which could lead to inaccuracies in reporting educational participation. The survey's emphasis on formal and non-formal education may also neglect important aspects of informal learning. Furthermore, the analysis based on a one-year timeframe may not adequately reflect long-term educational and labor market trends, especially in the context of extraordinary events like the COVID-19 pandemic. A significant limitation of this study is also the restricted access to essential data, which could only be obtained through the national statistical office's, thereby limiting the breadth and depth of analysis that could be conducted.

5.3.2. Future Research

Future research should focus on three areas: the impact of employment contract types (fixed term vs. permanent) on employee education and career advancement; the disparity in educational opportunities between small and large companies and its effects on employee performance; and the influence of flexible working arrangements, like teleworking, on educational participation and overall employee well-being. These areas are crucial for developing effective workplace policies and strategies that support lifelong learning and employee satisfaction.

6. Conclusions

The findings of this study highlight the critical role of adult education in fostering sustainable development across various dimensions. First, economic sustainability is significantly influenced by adult education. The strong correlation between participation in adult education and certain employment characteristics, such as fixed-term contracts and organizational size, underscores the importance of continuous learning for economic resilience. Promoting adult education, particularly in larger organizations and for those with less stable employment contracts, enhances workforce adaptability and productivity. This, in turn, supports sustainable economic growth by ensuring that the labor force can meet the evolving demands of the market. Secondly, the study reveals the importance of social equity and inclusion. The disparity in educational participation based on employment status and work schedule flexibility highlights the need for equitable access to learning opportunities. Policies that support flexible work arrangements and provide financial and logistical support for education can help bridge this gap. Ensuring that all individuals,

regardless of their job type or work schedule, have the opportunity to upskill and reskill promotes social equity and inclusion, contributing to a more cohesive society. Finally, the study underscores the importance of adaptability and innovation. The correlation between remote work opportunities and higher educational engagement suggests that flexible work environments can enhance learning and innovation. Encouraging remote work and other flexible arrangements provides employees with the time and resources needed to pursue further education. This adaptability fosters a culture of continuous improvement and innovation, essential for sustainable development in a rapidly changing world.

Funding: This research was funded by the Slovenian Research and Innovation Agency, grant number P5-0174 “Pedagogical-Andragogical Research—Learning and Education for Quality Community Life”.

Data Availability Statement: Data available on request due to restrictions from Eurostat: <https://ec.europa.eu/eurostat/web/microdata/european-union-labour-force-survey> (accessed on 2 February 2023).

Conflicts of Interest: The author declares no conflicts of interest.

References

1. Bessen, J. AI and Jobs: The role of demand'. In *Working Paper Series*; National Bureau of Economic Research: Cambridge, MA, USA, 2018. [CrossRef]
2. Ando, M.S.; Balakrishnan, M.R.; Gruss, B.; Hallaert, M.J.-J.; Jirasavetakul, L.-B.F.; Kirabaeva, K.; Klein, N.; Lariau, A.; Liu, L.Q.; Malacrino, D.; et al. *European Labor Markets and the COVID-19 Pandemic: Fallout and the Path Ahead*; International Monetary Fund: Washington, DC, USA, 2022. Available online: <https://www.imf.org/en/Publications/Departmental-Papers-Policy-Papers/Issues/2022/03/02/European-Labor-Markets-and-the-COVID-19-Pandemic-Fallout-and-the-Path-Ahead-512327> (accessed on 12 February 2024).
3. Boeren, E.; Roumell, E.A.; Roessger, K.M. COVID-19 and the Future of Adult Education: An Editorial. *Adult Educ. Q.* **2020**, *70*, 201–204. [CrossRef]
4. Košmerl, T. From Colonial Learning to Education for Sustainable Development. A Review of Selected Educational Concepts Concerning Global Interdependence. *Stud. Adult Educ. Learn.* **2021**, *27*, 101–120. [CrossRef] [PubMed]
5. Popescu, A.I. Continuing Training in Romania: Reasons and Benefits from the Perspective of the Knowledge Economy. *Econ. Sociol.* **2012**, *5*, 35–49. [CrossRef]
6. United Nations. Transforming Our World: The 2030 Agenda for Sustainable Development. 2015. Available online: <http://www.cma-lifelonglearning.org/lll/wp-content/uploads/2015/001%20Transforming%20our%20world%20Agenda%20Sustainable%20Development%202030%20EngFreSpa%20AEL%20151004.doc> (accessed on 10 June 2024).
7. Piao, X.; Managi, S. The International Role of Education in Sustainable Lifestyles and Economic Development. *Sci. Rep.* **2023**, *13*, 8733. [CrossRef] [PubMed]
8. Alam, G.M. Sustainable Education and Sustainability in Education: The Reality in the Era of Internationalisation and Commodification in Education—Is Higher Education Different? *Sustainability* **2023**, *15*, 1315. [CrossRef]
9. Charatsari, C.; Fragkoulis, I.; Anagnou, E.; Lioutas, E.D. Can Adult Education Boost Sustainability Transitions? Some Evidence from Farmers and Teachers. *Sustainability* **2022**, *14*, 9859. [CrossRef]
10. Ifeoma, F. Uzoagu Potentials of Adult Education for Knowledge Economy and Sustainability. *J. Adv. Educ. Philos.* **2022**, *6*, 130–135. [CrossRef]
11. Chang, C.-H.; Kidman, G. Life-long and life-wide education for our sustainable future. *Int. Res. Geogr. Environ. Educ.* **2022**, *31*, 85–88. [CrossRef]
12. CEDEFOP (Ed.) *Insights into Skill Shortages and Skill Mismatch: Learning from Cedefop's European Skills and Jobs Survey*; Cedefop Reference Series no. 106; Publications Office of the European Union: Luxembourg, 2018; ISBN 978-92-896-2520-3.
13. OECD. *Getting Skills Right: Future-Ready Adult Learning Systems*; Getting Skills Right; Organisation for Economic Co-Operation and Development: Paris, France, 2019; ISBN 978-92-64-31174-9. [CrossRef]
14. Goldin, C.; Katz, L.F. *The Race between Education and Technology*, 6390th ed.; Belknap Press (An Imprint of Harvard University Press): Cambridge, MA, USA, 2010; ISBN 978-0-674-03530-0.
15. UNESCO (Ed.) *Education for People and Planet: Creating Sustainable Futures for All*; Global education monitoring report; UNESCO: Paris, France, 2016; ISBN 978-92-3-100167-3.
16. Rubenson, K.; Desjardins, R. The Impact of Welfare State Regimes on Barriers to Participation in Adult Education: A Bounded Agency Model. *Adult Educ. Q.* **2009**, *59*, 187. [CrossRef]
17. Boxall, P.; Huo, M.-L.; Macky, K.; Winterton, J. Chapter 1 High-involvement Work Processes and Systems: A Review of Theory, Distribution, Outcomes, and Tensions. In *Research in Personnel and Human Resources Management*; Buckley, M.R., Wheeler, A.R., Baur, J.E., Halbesleben, J.R.B., Eds.; Emerald Publishing Limited: Leeds, UK, 2019; Volume 37, pp. 1–52, ISBN 978-1-78973-852-0. [CrossRef]

18. Kyndt, E.; Dochy, F.; Struyven, K.; Cascallar, E. The direct and indirect effect of motivation for learning on students' approaches to learning through the perceptions of workload and task complexity. *High. Educ. Res. Dev.* **2011**, *30*, 135–150. [\[CrossRef\]](#)
19. Wielenga-Meijer, E.G.A.; Taris, T.W.; Kompier, M.A.J.; Wigboldus, D.H.J. From task characteristics to learning: A systematic review. *Scand. J. Psychol.* **2010**, *51*, 363–375. [\[CrossRef\]](#) [\[PubMed\]](#)
20. Davidavičiene, V.; Rymaniak, J.; Lis, K. Remote workplaces as a determinant of working conditions in education during COVID-19. *Econ. Sociol.* **2023**, *16*, 123–138. [\[CrossRef\]](#)
21. European Commission. *Employment and Social Developments in Europe 2021: Towards a Strong Social EUROPE in the Aftermath of the COVID 19 Crisis: Reducing Disparities and Addressing Distributional Impacts: Annual Review*; Publications Office of the European Union: Luxembourg, 2021. Available online: <https://data.europa.eu/doi/10.2767/57771> (accessed on 5 July 2023).
22. Hackney, A.; Yung, M.; Somasundram, K.G.; Nowrouzi-Kia, B.; Oakman, J.; Yazdani, A. Working in the digital economy: A systematic review of the impact of work from home arrangements on personal and organizational performance and productivity. *PLoS ONE* **2022**, *17*, e0274728. [\[CrossRef\]](#) [\[PubMed\]](#)
23. Henke, J.B.; Jones, S.K.; O'Neill, T.A. Skills and abilities to thrive in remote work: What have we learned. *Front. Psychol.* **2022**, *13*, 893895. [\[CrossRef\]](#)
24. Holgersen, H.; Jia, Z.; Svenkerud, S. Who and how many can work from home? Evidence from task descriptions. *J. Labour Mark. Res.* **2021**, *55*, 4. [\[CrossRef\]](#) [\[PubMed\]](#)
25. Hill, E.J.; Miller, B.C.; Weiner, S.P.; Colihan, J. Influences of the virtual office on aspects of work and work/life balance. *Pers. Psychol.* **1998**, *51*, 667–683. [\[CrossRef\]](#)
26. Ashforth, B.E.; Kreiner, G.E.; Fugate, M. All in a day's work: Boundaries and micro role transitions. *Acad. Manag. Rev.* **2000**, *25*, 472–491. [\[CrossRef\]](#)
27. Williams, J.C.; Berdahl, J.L.; Vandello, J.A. Beyond Work-Life "Integration". *Annu. Rev. Psychol.* **2016**, *67*, 515–539. [\[CrossRef\]](#)
28. Eurostat EU Labour Force Survey 2023. Available online: <https://ec.europa.eu/eurostat/web/microdata/european-union-labour-force-survey> (accessed on 2 February 2023).
29. Akoglu, H. User's guide to correlation coefficients. *Turk. J. Emerg. Med.* **2018**, *18*, 91–93. [\[CrossRef\]](#) [\[PubMed\]](#)
30. de Grip, A.; Fouarge, D.; Montizaan, R.; Schreurs, B. Train to retain: Training opportunities, positive reciprocity, and expected retirement age. *J. Vocat. Behav.* **2020**, *117*, 103332. [\[CrossRef\]](#)
31. Fouarge, D.; de Grip, A.; Smits, W.; de Vries, R. Flexible Contracts and Human Capital Investments. *De Econ.* **2012**, *160*, 177–195. [\[CrossRef\]](#)
32. Finegold, D.; Levenson, A.; Van Buren, M. Access to training and its impact on temporary workers. *Hum. Resour. Manag. J.* **2005**, *15*, 66–85. [\[CrossRef\]](#)
33. Cutuli, G.; Guetto, R. Fixed-Term Contracts, Economic Conjuncture, and Training Opportunities: A Comparative Analysis Across European Labour Markets. *Eur. Sociol. Rev.* **2013**, *29*, 616–629. [\[CrossRef\]](#)
34. Joung, H.-W.; Choi, E.-K.; Taylor, J. Investigating differences in job-related attitudes between full-time and part-time employees in the foodservice industry. *Int. J. Contemp. Hosp. Manag.* **2018**, *30*, 817–835. [\[CrossRef\]](#)
35. Noe, R.A.; Clarke, A.D.M.; Klein, H.J. Learning in the twenty-first-century workplace. *Annu. Rev. Organ. Psychol. Organ. Behav.* **2014**, *1*, 245–275. [\[CrossRef\]](#)
36. Kotey, B.; Folker, C. Employee training in SMEs: Effect of size and firm type--family and nonfamily. *J. Small Bus. Manag.* **2007**, *45*, 214–238. [\[CrossRef\]](#)
37. Stone, R.J. *Human Resource Management*, 8th ed.; Wiley: Milton, QLD, Australia, 2013; ISBN 978-0-7303-0251-3.
38. Sels, L.; De Winne, S.; Maes, J.; Delmotte, J.; Faems, D.; Forrier, A. Unravelling the HRM-Performance Link: Value-Creating and Cost-Increasing Effects of Small Business HRM*. *J. Manag. Stud.* **2006**, *43*, 319–342. [\[CrossRef\]](#)
39. Kraimer, M.L.; Seibert, S.E.; Wayne, S.J.; Liden, R.C.; Bravo, J. Antecedents and outcomes of organizational support for development: The critical role of career opportunities. *J. Appl. Psychol.* **2011**, *96*, 485–500. [\[CrossRef\]](#) [\[PubMed\]](#)
40. Putnam, L.L.; Myers, K.K.; Gailliard, B.M. Examining the tensions in workplace flexibility and exploring options for new directions. *Hum. Relat.* **2014**, *67*, 413–440. [\[CrossRef\]](#)
41. Hornung, S.; Höge, T. Dialectics of workplace flexibility between humanistic ideal and neoliberal ideology—preliminary considerations. *Psychol. Des Alltagshandelns/ Psychol. Everyday Act.* **2019**, *12*, 73–83.
42. Rubery, J.; Keizer, A.; Grimshaw, D. Flexibility bites back: The multiple and hidden costs of flexible employment policies. *Hum. Resour. Manag. J.* **2016**, *26*, 235–251. [\[CrossRef\]](#)
43. Wang, B.; Liu, Y.; Qian, J.; Parker, S.K. Achieving Effective Remote Working During the COVID-19 Pandemic: A Work Design Perspective. *Appl. Psychol.* **2021**, *70*, 16–59. [\[CrossRef\]](#) [\[PubMed\]](#)
44. Lott, Y. Does Flexibility Help Employees Switch Off from Work? Flexible Working-Time Arrangements and Cognitive Work-to-Home Spillover for Women and Men in Germany. *Soc. Indic. Res.* **2020**, *151*, 471–494. [\[CrossRef\]](#)
45. OECD. *OECD Skills Outlook 2019: Thriving in a Digital World*; Organisation for Economic Co-Operation and Development: Paris, France, 2019. Available online: https://www.oecd-ilibrary.org/education/oecd-skills-outlook-2019_df80bc12-en (accessed on 25 June 2024).
46. UNESCO (Ed.) *Embracing a Culture of Lifelong Learning: Contribution to the Futures of Education Initiative*; UNESCO Institute for Lifelong Learning: Hamburg, Germany, 2020; ISBN 978-92-820-1239-0.

47. International Labour Organization. *World Employment and Social Outlook: Trends 2024*, 1st ed.; ILO: Geneva, Switzerland, 2024. [CrossRef]
48. CEDEFOP. *Empowering Adults through Upskilling and Reskilling Pathways. Volume 1, Adult Population with Potential for Upskilling and Reskilling*; Publications Office: Luxembourg, 2020. Available online: <https://data.europa.eu/doi/10.2801/691134> (accessed on 25 June 2024).
49. Eurofound. *Living, Working and COVID-19*; Publications Office: Luxembourg, 2020; Available online: <https://data.europa.eu/doi/10.2806/467608> (accessed on 25 June 2024).
50. Fana, M.; Torrejón Pérez, S.; Fernández-Macías, E. Employment impact of Covid-19 crisis: From short term effects to long terms prospects. *J. Ind. Bus. Econ.* **2020**, *47*, 391–410. [CrossRef]
51. Bonacini, L.; Gallo, G.; Scicchitano, S. Working from home and income inequality: Risks of a ‘new normal’ with COVID-19. *J. Popul. Econ.* **2021**, *34*, 303–360. [CrossRef] [PubMed]
52. Sostero, M.; Milasi, S.; Hurley, J.; Fernández-Macías, E.; Bisello, M. Teleworkability and the COVID-19 Crisis: A New Digital Divide? JRC Working Papers Series on Labour, Education and Technology. 2020. Working Paper 2020/05. Available online: <https://www.econstor.eu/handle/10419/231337> (accessed on 25 June 2024).
53. Felstead, A.; Henseke, G. Assessing the growth of remote working and its consequences for effort, well-being and work-life balance. *New Technol. Work. Employ.* **2017**, *32*, 195–212. [CrossRef]
54. Oakman, J.; Kinsman, N.; Stuckey, R.; Graham, M.; Weale, V. A rapid review of mental and physical health effects of working at home: How do we optimise health? *BMC Public Health* **2020**, *20*, 1825. [CrossRef] [PubMed]

Disclaimer/Publisher’s Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.