

Learning Attitudes and Voluntary Engagement among Mothers Recently Returning to the Labour Market

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Abstract: While the employment rate of Hungarian mothers is increasing, they still face several difficulties and forms of maternity bias during the reboarding period. Maternity leave is frequently perceived primarily as a career break. This study is part of a broader, multi-phase research project that uses a mixed-methods approach to examine the human, social, and psychological capital of first-time returner mothers, focusing on the development during maternity leave. This exploratory study investigates learning attitudes, self-development activities, and voluntary engagement during maternity leave among mothers who have recently returned to the labour market. The findings reveal that most of the mothers engaged in some form of learning or self-development, ranging from formal courses to informal activities. Additionally, using three survey questions and K-means clustering, two distinct attitudinal profiles related to learning were identified, following the methodology of Bencsik and Juhász (2014). While causality cannot be inferred, the analysis indicates that a positive attitude towards learning is associated with higher levels of voluntary and development-oriented activity. The results provide preliminary evidence that maternity leave can be a

period of development across a wide range of areas, with learning and voluntary activities representing an underutilised resource for mothers returning to the workforce.

Keywords: maternity leave, development, voluntary engagement, learning attitudes, return to work

1 Introduction

The employment rate of Hungarian mothers has increased steadily in recent years [1], reflecting broader labour market trends and demographic changes. Despite this positive development, mothers continue to face substantial challenges when returning to work after maternity leave [2], [3]. Previous research highlights that mothers re-entering the labour market often encounter structural barriers, organisational constraints, and forms of maternity bias, positioning them as a potentially disadvantaged group of employees [4]. The results of The Human Side by UNICEF and Profession [5] further demonstrates that both employers and employees perceive the reintegration process as complex, even though employers consider the reintegration of returning mothers easier than onboarding recent graduates.

In the Hungarian context, maternity leave is particularly long compared to other European Union member states, allowing parents to remain at home with their child for a relatively long time [6]. In this paper, maternity leave refers to the entire period during which mothers are absent from paid employment due to childcare responsibilities. According to recent findings, a significant proportion of mothers return to work only after a longer absence, with 75% resuming employment more than 1,5 years after childbirth [5]. This extended interruption is typically interpreted by employers as a career break, defined as a period of time away from paid work [7].

Career breaks, particularly those associated with motherhood, are often linked to negative career outcomes and perceived disadvantages [7]. In Western organisational cultures, linear, uninterrupted career trajectories are still implicitly expected, and deviations from this pattern may signal reduced commitment or competence [8]. However, empirical evidence suggests that such linear career paths are increasingly rare, especially among women [9], [10], [11]. The social stigma surrounding career interruptions persists, often reinforcing stereotypes and contributing to long-term inequalities [12]. At the same time, emerging research emphasises that career breaks can generate value, support skill development, and contribute positively to professional trajectories when appropriately managed [5], [13].

This perspective aligns closely with human capital theory, which conceptualises individuals' knowledge, skills, and competencies as key economic resources[14]. Human capital is not limited to formal education but also includes informal learning, work-related experiences, and the development of transferable skills acquired outside traditional employment contexts. From this perspective, maternity leave may represent not only a period of absence but also an opportunity to accumulate and transform human capital through self-directed learning, training, and experiential activities.

Despite the growing relevance of this perspective, research focusing specifically on mothers' knowledge development and self-improvement during maternity leave remains limited. While earlier Hungarian studies have examined preparation for returning to work and highlighted the importance of knowledge transfer [6], [15], less attention has been paid to how mothers actively engage in learning and development during their time at home.

In addition to formal and informal learning, voluntary work represents another important form of skill development and human capital accumulation. According to the definition of the Hungarian Central Statistical Office [16], voluntary work is defined as an activity that is (i) carried out directly or through an organisation, (ii) performed voluntarily, without payment or compensation, and (iii) conducted for the benefit of individuals outside one's household or for the wider society. Such activities may contribute to the development of transferable skills, social competencies, and work-related experience, which can support later labour market reintegration.

Against this background, the present paper—part of a broader mixed-methods research project—focuses on maternity leave as a potential period of development. It examines Hungarian mothers' learning attitudes alongside their engagement in learning, self-development, and voluntary activities during their time at home. In particular, the study explores how different attitudinal profiles are associated with participation in training and voluntary work, and how these activities may contribute to the development of human capital. By doing so, the paper highlights the potential of recognising and leveraging these experiences as valuable forms of human capital, both for individuals and for organisations, to support effective labour market reintegration.

2 Data and Methodology

This paper is part of a broader, ongoing, multi-phase research project with the presented research design (Figure 1). This exploratory research uses a mixed-methods approach to examine the human, social, and psychological capital of first-time returner mothers, focusing on development during maternity leave. The target

group of the research is first-time returning employed mothers who have returned to work in the last two years. A questionnaire serves as an application form for the research and collects information about participants' backgrounds, work, learning, and voluntary work experiences, as well as social, psychological, and a few aspects of human capital. In the second step, 29 leadership skills (such as time management, stakeholder management, feedback skills, etc.) are measured through the FLIGBY serious game, providing a wider picture of mothers' human capital after an online meeting [17]. Finally, We interview the participants. The basis of the interviews is the skill profile generated by FLIGBY and mothers' perceived development during maternity leave.

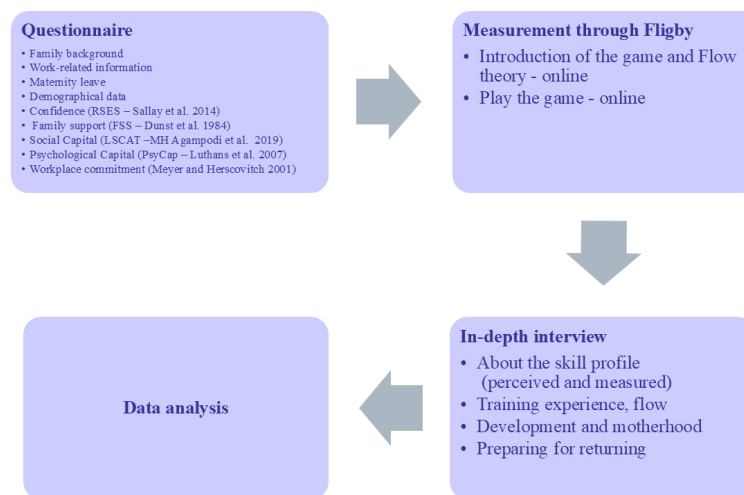


Figure 1
Research design
Source: Own Illustration

The current study examines questionnaire data collected between September 2025 and February 2026 from 41 Hungarian mothers in the target group with the presented characteristics (Table 1) regarding self-development activities, voluntary engagement and learning attitudes. Data were evaluated by SPSS 30.0.0.

	Minimum	Maximum	Mean	Std. Deviation
Age (year)	28	46	35,8	4,585
Length of maternity leave (year)	0,4	10	3,88	2,419
Work experience since returning (month)	1	24	12,95	8,5
Number of children	1	4	1,9	0,944

Table 1
Descriptive characteristics of the respondents
Source: Own Editing

The first part of the analysis presents descriptive statistics on self-development and voluntary work, using frequency counts and cross-tabulations. The second part consists of a K-means clustering analysis to identify homogeneous segments within the sample based on statements related to learning attitude. For this purpose, three survey questions on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree) were used, based on the research by Bencsik and Juhász[15].

3 Results

3.1 Self-development

According to the descriptive analysis, 61% of the respondents engaged in formal or informal courses or self-development during maternity leave. Figure 2 summarises these trainings based on the 41 responses to a multiple-choice survey question. Most respondents participated in a course or expanded their professional knowledge in their field. Apart from professional development, mothers opted for language learning and personal development training to improve themselves. Furthermore, on average, respondents participated in about two types of training activities.

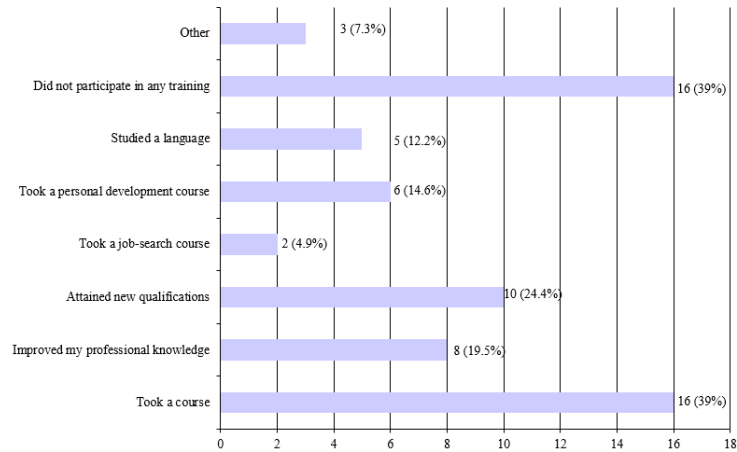


Figure 2
Trainings during maternity leave
Source: Own Illustration

3.2 Voluntary Engagement

The collected data shows that 31,7% of the respondents volunteered during maternity leave. Additionally, those who volunteered spent on average 3,7 hours per week with the chosen engagement in the year before reboarding. Furthermore, the cross-table calculation (Table 2) suggests that mothers who engaged in learning or self-development activities were substantially more likely to participate in voluntary work during maternity leave, suggesting that these behaviours may reflect a broader development-oriented attitude. Among voluntary workers, 92,3% participated in self-development activities, while among those who did not engage in self-development, 93,8% also did not participate in voluntary work during maternity leave. The result is statistically significant (Fisher's Exact Test $p = 0,006$) with a relatively strong effect size (Phi $\phi = 0,438$). Due to low cell frequencies, Fisher's Exact Test was applied.

			Voluntary work		Total
			Yes	No	
Training	Yes	Count	12	13	25
		% within Training	48,0%	52,0%	100,0%
		% within Voluntary work	92,3%	46,4%	61,0%
		% of Total	29,3%	31,7%	61,0%
	No	Count	1	15	16
		% within Training	6,3%	93,8%	100,0%
		% within Voluntary work	7,7%	53,6%	39,0%
		% of Total	2,4%	36,6%	39,0%
Total		Count	13	28	41
		% within Training	31,7%	68,3%	100,0%
		% within Voluntary work	100,0%	100,0%	100,0%
		% of Total	31,7%	68,3%	100,0%

Table 2
Cross-tabulation analysis regarding trainings and voluntary work during maternity leave
Source: Own Editing

3.3 Learning attitudes

The analysis of the three survey questions regarding learning attitudes (Table 3) suggests that participating mothers neither agree nor disagree with all the statements on average. Accordingly, mothers need to take care of their development during maternity leave to ensure successful reboarding, and young children may hinder the efficiency of studying. This result is close to the findings of Bencsik and Juhász, who reported 3,57 and 3,12, and 2,19 means for these statements in their larger sample twelve years ago.

Survey questions/statements	Mean	Std. Deviation
For a mother to successfully return to the workforce, she needs to continue developing her skills even during the time she spends at home	3,10	1,179
For a mother to successfully work again after returning, she needs to pursue self-development independently as well	2,83	1,181
If a woman has a young child, she cannot study effectively.	2,76	1,113

Table 3
Means related to learning attitudes (1 = strongly disagree, 5 = strongly agree)
Source: Own Editing

To obtain a more complex picture, Bencsik and Juhász segmented their sample into two clusters using a non-hierarchical clustering method. We were also curious about this segmentation in our sample, which is why the same procedure was conducted. The interpretation of the clusters is based on the cluster centroids. Table 4 below presents the final cluster centres obtained through the clustering procedure.

Final Cluster Centers		
	Cluster	
	1	2
For a mother to successfully return to the workforce, she needs to continue developing her skills even during the time she spends at home	2	4
For a mother to successfully work again after returning, she needs to pursue self-development independently as well	2	4
If a woman has a young child, she cannot study effectively.	3	2
Number of cases in each Cluster	23	18

Table 4
Cluster Centers
Source: Own Editing

Cluster 2 can be characterised as a development-oriented group with a positive attitude towards learning and self-improvement, while Cluster 1 represents a more constraint-oriented or less engaged group, showing lower levels of agreement with the importance and feasibility of learning during this life stage. Women in Cluster

2 do not perceive young children as a barrier to learning, whereas mothers in Cluster 1 are more likely to agree that having children negatively affects learning effectiveness.

The relatively small sample size may raise concerns about clustering. Given the limited number of clustering variables ($m = 3$) and the theoretically grounded item selection based on prior research [15], the sample size ($N = 41$) meets commonly cited minimum requirements for cluster analysis ($N \geq 2^m$) [18]. Additionally, the resulting clusters are considered interpretable within an exploratory framework.

In subsequent steps, we explored other characteristics of the clusters using cross-tabulation with two variables not included in the clustering process. The first analysis examined the relationship between clusters and participation in training or self-development during maternity leave (Table 5). Although almost twice as many respondents who did not participate in any training belong to Cluster 1 as Cluster 2, this result is not statistically significant (Fisher's Exact Test $p = 0,218$). The small sample size may yield an insignificant result; hence, it needs to be repeated in a larger sample.

			Trainings		Total
			Yes	No	
Cluster Number of Case	1	Count	12	11	23
		% within Cluster Number of Case	52,2%	47,8%	100,0%
	2	Count	13	5	18
		% within Cluster Number of Case	72,2%	27,8%	100,0%
Total		Count	25	16	41
		% within Cluster Number of Case	61,0%	39,0%	100,0%

Table 5
Participation in trainings
Source: Own Editing

On the other hand, in the second cross-tab analysis (Table 6), we discovered a statistically significant relationship between voluntary engagement and clusters (Fisher's Exact Test, $p = 0,006$), with a relatively strong effect size (Phi, $\phi = -0,453$). Accordingly, mothers in the less engaged group regarding learning (Cluster 1) are less likely to participate in any voluntary activities during maternity leave. 87% of these mothers did not volunteer as stay-at-home moms. However, half of the mothers with a positive attitude towards learning (Cluster 2) engaged in voluntary work. In other words, mothers with a less positive attitude towards learning and self-improvement are more likely to reject other forms of development during maternity leave, such as voluntary engagement.

			Voluntary work		Total
			Yes	No	
Cluster Number of Case	1	Count	3	20	23
		% within Cluster Number of Case	13,0%	87,0%	100,0%
	2	Count	10	8	18
		% within Cluster Number of Case	55,6%	44,4%	100,0%
Total		Count	13	28	41
		% within Cluster Number of Case	31,7%	68,3%	100,0%

Table 6
Voluntary work engagement
Source: Own Editing

4 Discussion

The findings of this study support a shift in perspective from maternity leave as a career interruption to a potential period of development. Rather than representing a

passive phase, the results indicate that many mothers actively engage in activities that may contribute to their human capital.

Two key patterns highlight this developmental potential. First, a relatively high proportion of respondents (61%) participated in some form of learning or self-development activity during maternity leave. Moreover, those who engaged in such activities often did so in multiple forms, suggesting not only openness but also sustained involvement in development. Second, voluntary work, although less widespread, was characterised by a relatively high time investment among participants. This indicates that for a subset of mothers, maternity leave includes regular and meaningful engagement in activities that may foster transferable skills.

From a human capital perspective [14], both learning activities and voluntary engagement can be interpreted as forms of skill and competency development. These activities may contribute not only to individual growth but also to the value that returning mothers can bring to organisations. In this sense, maternity leave can be seen as a period during which human capital is not necessarily depreciated but, in some cases, actively developed.

At the same time, the results suggest that participation in these activities is not evenly distributed across the sample. Learning attitudes appear to play a key role in shaping behaviour. The cluster analysis revealed that mothers who hold a more positive view of learning during maternity leave are more likely to engage in both training and voluntary work. In contrast, those who perceive childcare responsibilities as a barrier are less likely to participate in such activities. This finding underscores the importance of perception: the extent to which mothers perceive learning as feasible during this life stage may significantly influence their actual behaviour.

The strong association between learning activities and voluntary engagement further supports the interpretation that these behaviours are interconnected. Rather than isolated actions, they may reflect a broader development-oriented mindset. This aligns with previous literature suggesting that the outcomes of career interruptions depend on how individuals use this period [12], [13].

These findings have important implications for both families and organisations. As learning attitudes appear to influence engagement in development activities, external support and encouragement may play a key role in fostering such behaviour. Supporting mothers in recognising the possibility of effective learning during maternity leave—and providing accessible opportunities—may increase their motivation to engage in development-oriented activities. From an HR perspective, this suggests that organisations could benefit from acknowledging and building on these experiences upon return, rather than treating maternity leave solely as a period of absence. In this context, supportive organisational practices, particularly the role of supervisors and workplace culture, are essential for facilitating successful reintegration [19], [20]. Recognising and valuing

development activities undertaken during maternity leave may also help reduce maternity bias and promote more inclusive career trajectories.

However, the results should be interpreted with caution. The relatively small sample size limits generalisability, and the cross-sectional nature of the data precludes causal conclusions. The findings are therefore exploratory, but they point to meaningful patterns that warrant further investigation.

Conclusions

This study aimed to explore learning attitudes, self-development activities, and voluntary engagement during maternity leave among mothers who have recently returned to the labour market. The results provide preliminary evidence supporting the perspective that maternity leave can represent a period of active development.

The identification of two distinct attitudinal profiles highlights the importance of learning attitudes in shaping behaviour during maternity leave. Mothers with a more positive attitude towards learning are more likely to engage not only in training but also in voluntary work, suggesting a broader development-oriented mindset. These results provide preliminary evidence that different forms of activity during maternity leave are interconnected and may contribute to the accumulation of human capital.

From a theoretical perspective, the study reinforces the relevance of human capital theory in understanding maternity leave not as a gap but as a potential period of skill development and transformation. From a practical perspective, it points to an underutilised opportunity for both individuals and organisations. Recognising learning and voluntary activities as valuable forms of human capital may support more effective reintegration and help challenge prevailing assumptions about career interruptions.

Future research should build on these findings by using larger, more diverse samples and longitudinal designs to better understand the long-term impact of developmental activities during maternity leave. Furthermore, integrating qualitative insights—such as those planned in the broader research project—may provide a deeper understanding of the motivations, constraints, and perceived outcomes associated with these activities.

References

- [1] Makay Zs., Kapitány B., and Ökrös F.: Családtámogatás, női munkavállalás, 2024.
- [2] Fedor A.R. and Toldi A.: Labour market opportunities of women with young children after childbirth, *Kontakt*, vol. 19, no. 3, pp. 220–226, 2017, doi: 10.1016/j.kontakt.2017.07.003.

- [3] Kőműves Z., Kozák C., and Walter V.: A gyermekes anyák nehézségei a munka világában, *Metszetek*, vol. 12, no. 1, pp. 29–51, 2023, doi: 10.18392/metsz/2023/1/3.
- [4] Bácsné Bába É.: Kisgyermekes anyák a munkaerőpiacon - Pro és Contra, *TAYLOR*, no. 6, p. (1-2):250-59., 2014
- [5] UNICEF and Profession: The Human Side, 2024.
- [6] Bencsik A., Juhász T., Machova R., and Toth Z.: Critical Questions of Knowledge Management Concerning Women on Maternity Leave in Hungary, *Acta Polytech. Hung.*, vol. 12, no. 8, 2015.
- [7] Reitman F. and Schmeer J. A.: The Long-Term Negative Impacts of Managerial Career Interruptions: A Longitudinal Study of Men and Women MBAs, *Group Organ. Manag.*, vol. 30, no. 3, pp. 243–262, 2005, doi: 10.1177/1059601104269110.
- [8] Mavriplis C. et al.: Mind the Gap: Women in STEM Career Breaks, *J. Technol. Manag. Innov.*, vol. 5, no. 1, 2010, doi: 10.4067/S0718-27242010000100011.
- [9] Sabelis I. and Schilling E.: Editorial: Frayed Careers: Exploring Rhythms of Working Lives, *Gend. Work Organ.*, vol. 20, no. 2, pp. 127–132, 2013, doi: 10.1111/gwao.12020.
- [10] Freaney Y., Van Der Werff L., Greenberg D., Hayden T., Costello V., and Coleman A.: More than “just a mom”: Identity distancing and reactivation during re-entry transitions, *Gend. Work Organ.*, 2024, doi: 10.1111/gwao.13172.
- [11] Goldin C. and Mitchell J.: The New Life Cycle of Women’s Employment: Disappearing Humps, Sagging Middles, Expanding Tops, *J. Econ. Perspect.*, vol. 31, no. 1, pp. 161–182, 2017, doi: 10.1257/jep.31.1.161.
- [12] Bian X.: Career Interruptions: A Reconceptualization From a Chinese Taoism Perspective, *J. Career Dev.*, vol. 50, no. 2, pp. 372–385, 2023, doi: 10.1177/08948453221095864.
- [13] McKay H., Bright J. E. H., and Pryor R. G. L.: Finding order and direction from chaos: a comparison of chaos career counseling and trait matching counseling, *J. Employ. Couns.*, vol. 42, no. 3, pp. 98–112, 2005, doi: 10.1002/j.2161-1920.2005.tb00904.x.
- [14] OECD: The Well-being of Nations: The Role of Human and Social Capital. OECD, 2001. doi: 10.1787/9789264189515-en.
- [15] Bencsik A. and Juhász T.: A tudásmenedzsment gyakorlata a gyermekgondozási szabadságon tartózkodó nők körében, *TAYLOR*, vol. 6, no. 1–2, pp. 430–438, 2014.

- [16] Központi Statisztikai Hivatal: Önkéntes munka. 2017
- [17] Almeida F. and Buzady Z.: Development of soft skills competencies through the use of FLIGBY, *Technol. Pedagogy Educ.*, vol. 31, no. 4, pp. 417–430, 2022, doi: 10.1080/1475939X.2022.2058600.
- [18] Sarstedt M. and Mooi E.: Cluster Analysis, in *A Concise Guide to Market Research*, in Springer Texts in Business and Economics. , Berlin, Heidelberg: Springer Berlin Heidelberg, 2014, pp. 273–324. doi: 10.1007/978-3-642-53965-7_9.
- [19] Lucia-Casademunt A. M., García-Cabrera A. M., Padilla-Angulo L., and Cuéllar-Molina D.: Returning to Work after Childbirth in Europe: Well-Being, Work-Life Balance, and the Interplay of Supervisor Support, *Front. Psychol.*, vol. 9, p. 68, 2018, doi: 10.3389/fpsyg.2018.00068.
- [20] Carluccio F., Dal Corso L., Falco A., and De Carlo A.: How to positively manage return to work after maternity leave: Positive supervisor behaviors to promote working mothers' well-being, *TPM - Test. Psychom. Methodol. Appl. Psychol.*, vol. 27, no. 4, pp. 583–601, 2020, doi: 10.4473/TPM27.4.6.