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# Between Chaos, Instability, Change and Antifragility. A Qualitative Study of Working Conditions and Everyday Reality of Polish Montessori Early Childhood Education Teachers

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*Pomiędzy chaosem, niestabilnością, zmianą i antykruchością.  
Jakościowa analiza warunków pracy i codzienności polskich  
nauczycieli wczesnej edukacji Montessori*

**Abstract:** The aim of this article is to synthesise the results of a qualitative study on Montessori early childhood education teachers in Poland regarding the concept of meanings given to instability, chaos and change in their professional everyday life. The research was conducted among a group of thirty-five women working in kindergartens and primary schools using an individual, qualitative, semi-structured research interview, transcribed and analysed according to the procedure of phenomenography. The analysis of the outcome space made it possible to identify and describe three categories: I) change and instability as unbearable stressors, II) far from change and instability as something that is far away, III) change and instability as natural conditions for individual and organisational learning. The first category is related to conceptions of meaning that thematise instability as, something that is permanently experienced and, at the same time, something that ideally should not be experienced. This instability is primarily associated with authoritarian management styles and paternalistic treatment of teachers by employers and/or parents of children. Within the second category are narratives illustrating working conditions away from change and instability provided by the strong personalities of head teachers and authoritarian management. The third category refers to change and instability as a natural condition of the world. From this perspective, not only are they not negative, but quite the opposite. Instability and change provide opportunities for learning and at both individual and organisational levels.

**Keywords:** Montessori teacher; antifragility; instability; change; chaos

**Abstrakt:** Celem artykułu jest syntetyczna prezentacja wyników badania jakościowego nad nauczycielami wczesnej edukacji Montessori w Polsce w zakresie koncepcji znaczeń nadawanych niestabilności, chaosowi i zmia-

nie w ich profesjonalnej codzienności. Badania zrealizowano wśród 35 kobiet pracujących w przedszkolach i szkołach podstawowych z wykorzystaniem indywidualnego, jakościowego, semi-strukturyzowanego wywiadu badawczego, analizowanego zgodnie z procedurą fenomenografii. Analiza przestrzeni wynikowej pozwoliła na zidentyfikowanie i opisanie trzech kategorii określonych jako: 1) zmiana i niestabilność jako stresory nie do zniesienia; 2) daleko od zmiany i niestabilności; 3) zmiana i niestabilność jako naturalne warunki uczenia się indywidualnego i organizacyjnego. Pierwsza kategoria związana jest z koncepcjami znaczeń, które tematyzują niestabilność jako coś, co jest permanentnie doświadczane, a jednocześnie coś, czego najlepiej byłoby nie doświadczać. Owa niestabilność związana jest przede wszystkim z autorytarnym stylem zarządzania oraz paternalistycznym traktowaniem nauczycieli przez pracodawców i/lub rodziców dzieci. W ramach drugiej kategorii lokują się narracje ilustrujące warunki pracy z dala od zmian i niestabilności, zapewniane dzięki silnej osobowości dyrektorów placówek i autorytarnemu zarządzaniu. Trzecia kategoria odwołuje się do zmiany i niestabilności jako naturalnej kondycji świata. Z tej perspektywy nie są one negatywnie nacechowane, lecz wręcz przeciwnie – niestabilność i zmiana dostarczają okazji do uczenia się, i to zarówno na poziomie indywidualnym, jak i organizacyjnym.

**Słowa kluczowe:** nauczyciel Montessori; antykruchosć; niestabilność; zmiana; chaos

## INTRODUCTION

Montessori pedagogy belongs to a very limited group of educational, non-traditional approaches with a global range (Debs et al., 2022). This unique idea and practice of education has also been popular in Eastern Europe countries since the beginning of the 20<sup>th</sup> century (see, e.g. Dybiec, 2009; Neacșu, 2017, pp. 119–124; Schnepf, 2010). In this region of the world, it is Poland that is an unquestionable leader when it comes to the number of educational institutions, with approx. six hundred Montessori schools (Debs et al., 2022).

Although the exact amount as well as the managing models of these institutions in Poland have not been thoroughly researched yet, we can risk a hypothesis that a vast majority of them are non-state funded. These, mostly private and community-managed, entities re-established after the decomposition of the Soviet Block in 1989 and have existed in Poland for slightly more than three decades. This is a period in Poland facing relatively constant low birth-rate of less than 1.3 live births per woman in 2002 to 1.3–1.45 in 2021 (Eurostat, 2023), newly established free market economy and fairly traditional model of social organization lacking social capital and mutual trust (Sztompka, 2007).

Such macro-economic and psychosocial conditions may contribute to creating the relations (within and among organizations) based on both neo-liberal and semi-feudal relations (Hryniewicz, 2007; Zamojski, 2018, pp. 416–433). At the same time, some research show that *chaos*, *change* and a certain degree of *instability* are indispensable features of contemporary educational reality (Klus-Stańska, 2010, pp. 13–26). It is therefore interesting and important to investigate how Montessori practitioners working in early education (in these peculiar macro contexts) thematize and experience their job conditions and every-day, professional reality.

In the article presented we will first focus on methodological aspects of the research by briefly outlining the methods and the empirical material analysis procedure. Later, we will turn to the synthesis of the results, which will later be discussed. In conclusion, we will turn to the notion of antifragility (Taleb, 2012; Fortunato, 2017, pp. 177–187) pointing out that perhaps this approach may serve the organizations that wish to learn and develop (Jaaron, Backhouse, 2014) as well as indicate a possible path to better (Montessori) education.

## MATERIAL AND METHODS

Between 2019 and 2022, we conducted thirty-five in-depth, individual, semi-structured interviews that were later analyzed according to the procedure of phenomenography (Marton, 1986; Richardson, 1999) and the seven steps of analysis and interpretation described by Kvale (1994). These steps include: a) thematizing, b) designing, c) interviewing, d) transcribing, e) analysing, f) verifying, and g) reporting. The time context of this research is significant as it included the COVID-19 lockdown, which is reported by many scholars to have influenced the reality of (Montessori) education (Murray et al., 2021a; Murray et al., 2021b; Scott, Myers, 2021). In the light of the research mentioned above, teachers faced numerous challenges, related to the engagement of students, limitations of the prepared environment as well as setting the limits with ECE students. The sample consisted of thirty-five female Montessori teachers (aged 23–58) working in 14 institutions (10 kindergartens, 4 elementary schools) located in the north of Poland.

The main research question in the project was formed as follows: How do Montessori teachers experience their professional reality?

This issue and the closely related themes had been numerously researched in ECE analyses before in other places of the world and in various social conditions with the use of both quantitative and qualitative strategies of social research (see, e.g. Andrisano Ruggieri et al., 2020; Aziz, Quraishi, 2017; Beatty, 2011; Christensen, 2016; Christensen, 2019; Efe, Ulutas, 2022; Ender, Ozcan, 2019; Malm, 2004; Siswanto, Kuswandono, 2020). It is undoubtedly a significant problem as it has the potential to – in Goffman’s terms – “frame” experiences and practices (Bavli, Kocabaş, 2022; Damore, Rieckhof, 2021) not only with regard to ECE, but also in relation to the teacher trainees (Slovacek, Minova, 2021), high school Montessori education (Rathunde, Csikszentmihalyi, 2005) and other “alternative” pedagogies (Dodd-Nufrio, 2011). Although it has not yet been thoroughly investigated in Polish educational culture, the reports by Zdybel show teachers have unique epistemological personal theories (theories of knowledge <construction>) that may affect their practices (Zdybel, 2020).

For the purpose of this paper, focusing on the categories of *change*, *instability*, *chaos* and *antifragility*, we have narrowed the range of analyses and chose these parts of the narratives that were identified as related to the problem categories. For this purpose, an open coding was implemented, with the use of QSR NVivo software as suggested by Feng and Behar-Horenstein (2019) and later analytical categories were formulated.

In other words, the analysis procedure involved: a) looking through the natural sense units (verbatim interview transcripts) oriented towards the specific parts of the narratives, b) coding the extracts, c) condensing and comparing the codes, d) identifying, labeling and describing analytical categories, e) illustrating the categories with “representative” quotes, f) evidence-based interpretation.

## RESULTS

During the analysis three major descriptive categories were identified: I) change and instability as unbearable stressors, II) change and instability as something that is far away and III) change and instability as natural conditions for organizational and individual learning. In this chapter findings from all three categories will be presented. First, category one will be presented, along with its subcategories, and then two other categories will be outlined.

Within the first category related to change and instability these two aspects are thematized as unbearable and very difficult stressors affecting, and – at times “destroying” [I14] – both individuals and organizations. Teachers seek for stability and some constancy in their schools but due to different reasons it cannot be achieved. Some of the interviewees use the Montessorian notion of normalization (Montessori, 1992, p. 257) as an ideal that should but cannot be achieved. Since the aforementioned reasons outline the dimensions of instability and never-ending changes, they have served in the analysis as the basis for subcategorization.

### **Subcategory IA – *our school is constantly pregnant* [I11]**

Due to constant fluctuation of staff, mainly because the schools hire relatively young women, they are “never prepared to serve the child the Montessori way” [I21]. All the time children meet adults who are not *yet* prepared guides, which results in shifts from Montessori towards more transmissive and traditional practices.

and then there was another change, and I don't know how many times it had happened here before but I was just then at the beginning, and I was to lead the group! And we had an assistant [showing inverted commas with fingers] who would come into the room for a while, then she would leave because she was between all the groups and five months later, she was gone as she got pregnant. Then in December it changed again because

another educator left as she was pregnant too. Well, and basically the class was left..., Aaaa! Sometimes we laugh that our school is pregnant!!! But believe me – it is not funny at all. I'd love to one day concentrate and do a real Montessori with my kids. [I8]

Haha... I'm laughing because this team of mine, it's constantly changing, so yeah I don't know if I should talk about the team that was with us before we closed or now, haha. It's so dynamic. [I30]

I had one like that, when she started her job, well I replaced the girl who was, she got pregnant, so I started theoretically already in June. From September full steam ahead and in October it turned out that the girl I was supposed to work with was also pregnant... You can never relax. [I26]

### **Subcategory IB – *new parents, new school* [I28]**

Some informants say that their reality is constantly changing as the managers/owners of schools change ideas, requirements, routines, regulations all the time, depending on what parents tell them to do. The interviewed teachers mention that it is even difficult to talk about some regularity since new conditions are arbitrarily and... regularly announced and must be obediently applied. The schools treat parents as clients who have the right to define and execute their expectations. In this way such institutions do not provide stability that is longed for by the teachers.

You know, they come each year and each year they have new fantastic ideas [sarcasm]. And my boss... oh God, she doesn't understand anything and says we cannot ignore the parents because they pay us the salaries. (...) And yes... she is right to some extent, but this is not a shoe shop. (...) And of course, we will never have Montessori here because we chase parents all the f... time. [I4].

### **Subcategory IC – *our boss is always full of surprises* [I6]**

The interviewees place the complete lack of stability in the lack of stability of the leader. They point to the fact that they never know what kind of new solution, task or obligation will be implemented.

Once I was asked to start doing a different thing each day. My boss, Mr [name] told me that I need to buy some fresh food for the rabbit each morning before school. Can you imagine that? (...) Then Mr [name] and Mrs [name] went for a conference on discipline in Montessori. We were all afraid and... we were right. They came back and gathered all the teachers – some of them with 10 year of experience and told us all that from now on we maintain discipline in a new way. And this is just one story. (...) Last year Mr [name] and Mrs [name] went for vacations to Cyprus and they visited a Montessori kindergarten and “they fell in love with it” so this time we had to focus on introducing sustainable development goals, of course with new tools and new ideas. Horrible! Thank God! I am not there anymore. [I9]

As we could see the never-ending and not-welcome instability can be initiated by teachers, parents or administrators. In this perspective these constant changes should

be avoided as they make the practice unbearable and impair the quality of education. What is striking, none of the interviewees mentioned the lockdown and online education as the change that could be defined as unbearable. Although it is not stated *expressis verbis* in the narratives we can assume that the teachers cannot accept short-sightedness of the employers in terms of proper employment policies, establishing proper relations with parents or anti-democratic decision-making systems.

The second identified category – *change and instability as something that is far away* – describes almost opposite experiences. As mentioned before, here the change and instability are thematized as something that is located outside the school and the working environment is stable, predictable and solid.

I know that my friends face many problems, but I am very happy to have a boss who is like a captain on the ship. She knows what she does, she believes in Montessori and there is no compromise. (...) I remember one mum who tried to convince her to offer some small tests for the children. She listened patiently, smiled and... next year refused to prolong the contract. [I12]

Here everything is on paper. I have a regular contract and my money comes on time or often before. (...) Also, we can send our kids to our creche, children's house and then to elementary so you know many people have been here for six, ten or twelve years. If you have to look for a kindergarten and pay for it, you think twice before you leave! So, I stayed... too although sometimes it was hard. [I18]

We don't talk to parents about many things. He does it. He is like a guard [laugh] but it works! And we can close the door and do what we need to do. We can focus on children. [I11]

It is quite interesting that in both categories change, chaos and instability are experienced as something *negative*. In the case of category one, the interviewees face and suffer from instability, whilst in category two they are lucky to be far from it protected by their employers. The metaphor of the captain is significant too. From one side it is the person with clear goal and crystalized vision which helps, often less experienced teachers. On the other hand, this model can resemble the antidemocratic and asymmetrical relations among various groups of subjects in education “visible” in the first analytical category. One might say that it is the very same model of leadership – namely the authoritarian (Parlar et al., 2022; cf. Fuller, Templeton, 2019).

Finally, we will turn to the findings related to category three – *change and instability as natural conditions for organizational and individual learning*. It relates to the thematizations in which the educational is – by definition – unpredictable since human beings are unique and constantly changing, and this makes practices creative and motivating. The instability and “constant movement in the environment” [I22] are vital as they keep the teachers “focused and open minded” [I22]. The interviewees refer to the “outside reality [that is] constantly changing” [I29]

and, thus, the educational institutions cannot be different. Within this category we can identify the concepts of meanings that verbalise instability not only in neutral or positive way, showing different connotations and associations but also touching upon the concept on a philosophical level [I17, I22, I29].

One of the informants, having referred to movement as characteristics of all entities or beings, especially the living ones but not only, mentions the well-known words of Heraclitus of Ephesus about a river and the ideal of *panta rhei* ("everything flows") [I17].

I cannot imagine myself packing four apples in a box eight hours a day, five days a week for forty years. You know – *panta rhei*. Look at us, each day we are different. You can't repeat the same presentation twice. You don't have two children who are the same. People who want to work here must embrace and love it. (...) Many of my friends from the course [Montessori teacher diploma course] are not teachers anymore. They love the routines, they love to know. I hate it. I adore being surprised, I love not knowing. [I17]

Everything planned, we are ready and then s... happens. COVID comes, we are locked, we can't see the kids. You know this is tough, but I took three breaths in and said to myself. Get get get a f...ing grip and start thinking about how to get it right here! (...) Do you remember Forrest Gump? Life is like a box of chocolates! (ha ha ha). But seriously this is what I love about the job. [I22]

You know, you know, you remember the third great story right? The story of humans – we are not limited to adaptation we can also modify the environment, the world and if we do it wisely it is ok. Children manipulate and I have child in me – I need to manipulate, experiment all the time. I treat it as a challenge. Sometimes it comes from the child, sometimes new technology, sometimes from natural disasters. (...) It can always be a lesson to learn. [I30]

## DISCUSSION AND CONCLUSIONS

Prior studies have noted the importance of cultural codes on educational reasoning and practices (Zamojski, 2018), and the results of this study seem to reflect these observations. However, they also indicate that the ideal of antifragile organizations and practitioners can be identified among Polish Montessori teachers and administrators. One, completely unanticipated, finding was that the attitude towards change, chaos and instability may be related to the perception of the source. If experienced as objective (such as the outbreak of the global pandemic) or natural (movement as characteristics of all beings) it can be treated as an occasion to learn, adapt, or emancipate. If imposed in monological, authoritarian mode (regardless the source) it is avoided, feared and unwelcome.

Of course, one of the major limitations of this study is its qualitative and thus not verifiable nature, so the conclusions need to be treated rather as thought-pro-

voicing questions than close-ended and objective answers. Perhaps, more research using controlled sampling and verification, implementing more positivistic research strategies would shed a different light on the researched phenomena.

Another thing is that being limited to non-state funded Montessori institutions, situated in one, relatively wealthy region of Poland this research lacks sufficient sample diversity. Nonetheless, the author made sure to conduct much more interviews than it is usually done while the phenomenography is used, to assure “the saturation of research categories”.

## FURTHER STUDIES

In the future, it might be a good idea to follow the research themes oriented towards identifying optimal development conditions for practitioners or/and candidates for teachers (Walker, Ardell, 2020; Fuller, Templeton, 2019) incorporating the theoretical frame of antifragility (Taleb, 2012). Undoubtedly, considerably more research work will need to be done to determine what really matters in relation to change, chaos and instability in education, however, the findings presented above do suggest several possible courses of action.

## REFERENCES

- Andrisano Ruggieri, R., Iervolino, A., Mossi, P., Santoro, E., Boccia, G. (2020). Instability of personality traits of teachers in risk conditions due to work-related stress. *Behavioral Sciences*, 10(5), 91.
- Aziz, F., Quraishi, U. (2017). Effects of political instability on teachers' work decorum in Pakistani universities: A teachers' perspective. *Pakistan Vision*, 18(1).
- Bavli, B., Kocabaş, H.U. (2022). The Montessori educational method: Communication and collaboration of teachers with the child. *Participatory Educational Research*, 9(1), 443–462.
- Beatty, B. (2011). The dilemma of scripted instruction: Comparing teacher autonomy, fidelity, and resistance in the Froebelian kindergarten, Montessori, direct instruction, and success for all. *Teachers College Record*, 113(3), 395–430.
- Christensen, O. (2016). Proving Montessori: Identity and dilemmas in a Montessori teacher's lived experience. *Journal of Montessori Research*, 2(2), 35–48.
- Christensen, O. (2019). Montessori identity in dialogue: A selected review of literature on teacher identity. *Journal of Montessori Research*, 5(2), 45–56.
- Damore, S., Rieckhof, B. (2021). Leading reflective practices in Montessori schools. *Journal of Montessori Research*, 7(1), 51–65.
- Debs, M., de Brouwer, J., Murray, A. K., Lawrence, L., Tyne, M., von der Wehl, C. (2022). Global diffusion of Montessori schools: A report from the 2022 Global Montessori Census. *Journal of Montessori Research*, 8(2), 1–15.

- Dodd-Nufrio, A.T. (2011). Reggio Emilia, Maria Montessori, and John Dewey: Dispelling teachers' misconceptions and understanding theoretical foundations. *Early Childhood Education Journal*, 39, 235–237.
- Dybiec, J. (2009). Recepcja metody Marii Montessori w Polsce 1912–2008. In: B. Surma (red.). *Pedagogika Marii Montessori w Polsce i na świecie* (pp. 33–50). Łódź – Kraków: Palatium & Ignatianum.
- Efe, M., Ulutas, I. (2022). Beyond teaching: Montessori education initiatives of public preschool teachers in Turkey. *Educational Research for Policy and Practice*, 21(3), 375–388.
- Ender, D., Ozcan, D. (2019). Self-efficacy perceptions of teachers on using the Montessori method in special education in North Cyprus. *Cypriot Journal of Educational Sciences*, 14(4), 652–660.
- Eurostat. (2023). [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Fertility\\_statistics#](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Fertility_statistics#) (access: 1.03.2023).
- Feng, X., Behar-Horenstein, L. (2019). Maximizing NVivo utilities to analyze open-ended responses. *The Qualitative Report*, 24(3), 563–572.
- Fortunato, M.W. (2017). Advancing educational diversity: antifragility, standardization, democracy, and a multitude of education options. *Cultural Studies of Science Education*, 12, 177–187.
- Fuller, M.J., Templeton, N.R. (2019). Principal as servant-leader: An embedded-descriptive single-case study of one prekindergarten school's efforts to build teacher capacity in foundational skills. *Education Leadership Review*, 20(1), 190–204.
- Hryniewicz, J.T. (2007). *Stosunki pracy w polskich organizacjach*. Warszawa: Wyd. Nauk. Scholar.
- Jaaron, A., Backhouse, C.J. (2014). Learning from chaos: The advent of antifragility in service organizations. In: *Proceedings of the 2014 POMS International Conference, Singapore* (pp. 21–23).
- Klus-Stańska, D. (2010). *Dydaktyka wobec chaosu pojęć i zdarzeń*. Warszawa: Wyd. Akademickie Żak.
- Kvale, S. (1994). *Interviews: An Introduction to Qualitative Research Interviewing*. Sage Publications.
- Malm, B. (2004). Constructing professional identities: Montessori teachers' voices and visions. *Scandinavian Journal of Educational Research*, 48(4), 397–412.
- Marton, F. (1986). Phenomenography – a research approach to investigating different understandings of reality. *Journal of Thought*, 28–49.
- Montessori, M. (1992) [1949]. *The Absorbent Mind*. Madras: Kalakshetra.
- Murray, A.K., Brown, K.E., Barton, P. (2021a). Montessori education at a distance, part 1: A survey of Montessori educators' response to a global pandemic. *Journal of Montessori Research*, 7(1), 1–29.
- Murray, A.K., Brown, K.E., Barton, P. (2021b). Montessori education at a distance, part 2: A mixed-methods examination of Montessori educators' response to a global pandemic. *Journal of Montessori Research*, 7(1), 31–50.
- Neacșu, M. (2017). The contribution of Professor Illie Sulea-Firu to the development of the Montessori pedagogy in Romania. In: I. Albușescu, H. Catalano (Eds.), *Alternative Educational Methodologies* (pp. 119–124). Newcastle: Cambridge Scholars Publishing.
- Parlar, H., Türkoğlu, M.E., Cansoy, R. (2022). Exploring how authoritarian leadership affects commitment: The mediating roles of trust in the school principal and silence. *International Journal of Educational Management*, 36(1), 110–129.

- Rathunde, K., Csikszentmihalyi, M. (2005). The social context of middle school: Teachers, friends, and activities in Montessori and traditional school environments. *The Elementary School Journal*, 106(1), 59–79.
- Richardson, J.T. (1999). The concepts and methods of phenomenographic research. *Review of Educational Research*, 69(1), 53–82.
- Schnepf, C. 2010. *A comparative Case Study of the Implementation of Montessori Pedagogy in the United Republic of Tanzania and the Russian Federation*. Ann Arbor: UMI Dissertation Publishing.
- Scott, C.M., Myers, B.M. (2021). Montessori education: Teacher perceptions of challenges in transitioning to virtual instruction. *Journal of Montessori Research*, 7(2), 1–11.
- Siswanto, I.L., Kuswandono, P. (2020). Understanding teacher identity construction: Professional experiences of becoming Indonesian Montessori teachers. *Indonesian Journal of English Language Teaching and Applied Linguistics*, 5(1), 1–16.
- Slovacek, M., Minova, M. (2021). Training of undergraduate preschool teachers in Montessori education in Slovakia and the Czech Republic. *Research in Pedagogy*, 11(1), 137–150.
- Sztompka, P. (2007). *Zaufanie. Fundament społeczeństwa*. Kraków: Znak.
- Taleb, N.N. (2012). *Antifragile: How to Live in a World We Don't Understand* (vol. 3). London: Allen Lane.
- Walker, N.T., Ardell, A. (2020). Reconsidering preservice-mentor relationships in complex times: New possibilities for collaboration and contribution. *Issues in Teacher Education*, 29, 132–141.
- Zamojski, P. (2018). Cultural codes and education in Poland – a plea for a new educational imaginary. *Policy Futures in Education*, 16(4), 416–433.
- Zdybel, D. (2020). Mapping teachers' personal epistemologies – phenomenographical approach. *Thinking Skills and Creativity*, 38, 100722.