Planetary identity as a characteristic of a multicultural teacher

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Abstract

This study examines the integration of planetary identity into the teacher education curriculum, focusing on its impact on future educators' professional identity. The study involved 448 university students in Kazakhstan, who were divided into experimental and control groups. The experimental groups participated in courses emphasizing ethnic values and multicultural education, while the control groups followed traditional pedagogical content. The results indicated that the planetary identity of students in the experimental groups, particularly those in group E1, developed more significantly compared to those in the control groups. This study confirms that planetary identity can be conceptualized and fostered in teacher education through structured courses that promote multicultural values and global awareness. The findings suggest that incorporating planetary identity into the curriculum can positively influence teachers' professional and personal growth, aligning them with global educational goals. Future research should explore the long-term effects of such educational interventions and refine the measures used to assess planetary identity in diverse educational contexts.

Keywords: Ethics; personality; planetary consciousness; planetary identity; professional identity; multicultural educator.

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1. INTRODUCTION

Issues of teacher professional identity are now evident in research. Recent education, economic, and environmental reforms associated with globalization have made teaching a complicated endeavor (Xing, 2022). The teacher's professional identity is contested at both the policy and practice level (Sachs, 2001; Zhang et al., 2024; Zhai et al., 2024). Some believe that the teacher's role is the primary source of knowledge, role model, and mentor (Niess, 2015; Van der Klink et al., 2017; Namaziandost et al., 2024). In comparison, others view teachers as managers and entrepreneurs (Sachs, 2001) and propagators of globalization (Niess, 2015; Van der Klink et al., 2017). All these roles are focused on traditional conceptions of a teacher (Furling, 2000; Wang et al., 2024). With pandemics and diseases being part of our daily lives, some cultural, ethical, and religious traditions find their way into the teaching profession and require the teacher's leadership. According to Bauman (2020), these dynamics call for a paradigm shift in how we view teachers from being isolated in the classroom to being part of a planetary community. Research by Bauman, (2020) posits that the essence of teaching is to embrace and disseminate the planetary identity. There is no unified definition of planetary identity, but in this context, we define planetary identity as forming planetary thinking in the education system (He & Chen, 2021; Moraru & Cristea, 2013). This conceptualization arises from the definition of planetary consciousness (Fine, 2009; Gidley, 2007; Veselý, 2017), the notions of global consciousness, cosmic consciousness (Rülke et al., 2020), and the doctrine of the noosphere (Sasselov et al., 2020; Wyly, 2015). Sasselov (2020) stated that the planetary identity aims to form a global person appreciating the interdependence between ecology, evolution, economics, and culture. This paper examines the formation of a planetary identity and examines how this identity influences the teaching profession.

In this paper, the focus is on constructing the planetary identity for teachers in their professional lives. To comprehensively examine this identity, we utilize Sagee's (2014) research on the theory of modes of existence and integrate it with the literature on forming professional identities (Beijaard et al., 2000). This framework is appropriate for our study as it starts with teacher training in the global era and promotes modern pedagogical practices in teaching. The theory of modes of existence describes an individual's perceptions or behaviors in response to the environment, including their thoughts, emotions, and actions (Sagee, 2014). All teachers have a natural inclination to grow, love, and promote self-fulfillment (Fromm, 1976; Rand, 2017). This assertion assumes that teachers can view the world from an evolutionary and planetary perspective (Bauman, 2020) and align their goals, needs, and aspirations with their environment. This motivation contributes to the student's knowledge base and develops their professional identity (Sagee, 2014).

Research has shown that the education system faces contradictions in the economic, political, and cultural spaces (Avidov-Ungar & Forkosh-Baruch, 2018; Li et al., 2016). According to Sachs (2001), this process has created cultural incongruence between universal and national ethics. In the era of globalization, where ethnos, nations, and humankind interact, only education can streamline these spaces without causing conflict. Therefore, it is necessary to develop a planetary identity (Bauman, 2020) in the younger generation and position it as one of the personality's social characteristics. Therefore, this study aims to develop a system of evaluating and developing planetary identities in teachers and students.

This paper aims to make two contributions to literature. First, it contributes to the modes of existence (Sagee, 2014) theory by integrating educational leadership, international education, and development. This theory has been utilized at kindergarten, elementary school, secondary school, and college education levels (Avidov-Ungar & Forkosh-Baruch, 2018; Sagee, 2014). This article uses this framework to categorize a planetary identity's characteristics in a multicultural context and explain its development in teachers (see Table 1, Gardner-McTaggart, 2022). Therefore, we contribute to the theory of modes of existence (Sagee, 2014) by combining professionality and global mindedness as a future teacher's identity.

Second, this paper answers Avidov-Ungar & Forkosh-Baruch's (2018) call to disentangle the teaching profession's paradoxes and the development of their identity. This study revises the teacher's professional identity by highlighting their role as planetary leaders. Previous research has mainly focused on the teaching profession's intensity (Avidov-Ungar & Forkosh-Baruch, 2018) and its classroom practices (Sachs, 2001). This

study extends previous research by exploring planetary concerns and how they influence teachers' ethics and spirituality. Also, it builds on Bauman's (2020) definition of identities and how this can be incorporated into the education system.

1.1. Literature review

1.1.1. Individual planetary identity

The concept of planetary identity can be traced back to the literature on identity (Burns, 2020; Marcia & Friedman, 1970; Omelaenko, 2019). An individual's identity is defined as a combination of an individual's ideas, social connections, and social experiences (Tajfel & Turner, 2003). Research has outlined identity variants such as planetary identity, social identity, cultural identity, and personal identity (Adler, 1998; Bauman, 2020; Breakwell, 2015; Côté, 1996). Planetary identity evolves as individuals familiarize themselves with their culture and ethnicity. Sjostrom (1981) posits that as planetary identities are formed, individual tolerance of diverse nationalities, economies, and religions strengthens. Tolerance is fundamental in the formation of the planetary identity (Sjostrom, 1981).

In the beginning, the study of identity contributed to the development of syllabi and education programs that were best suited for students of every age (Jassawalla & Sashittal, 2017; Marcia & Friedman, 1970). These studies also examined the factors that motivated teachers in their vocation (Omelaenko, 2019). However, at the end of the 20th century, researchers and practitioners needed education systems that encompassed students' ethnic and cultural pluralism (Marcia & Friedman, 1970). The students were also required to be innovative and multicultural (Stanton & Stanton, 2020; Steel & Taras, 2010). This understanding brought forth global education (Hanvey, 1982; Jassawalla & Sashittal, 2017).

According to Hanvey (1982), through global education, students understood the global and embraced the slogan "think globally; act locally." This proposal was also reiterated by Sjostrom (1981), who stated that education was meant to respect and recognize diversity in values. Global education can only succeed by developing an individual's planetary identity (Sjostrom, 1981). It is believed that knowledge of an individual's planetary identity will enhance the creation of comprehensive democratic values and united societies (Gidley, 2007).

1.1.2. Multicultural identity of the future teacher

The teacher's professional identity relies on the three concepts of knowledge, autonomy, and responsibility (Furling, 2000). Teachers often face complex and unpredictable situations that require specialized skills and techniques; for the proper application of these skills, they need autonomy to make decisions. In sum, teachers are responsible for the sustenance of knowledge and values in the environment (Sachs, 2001). These concepts offer a particular identity through which teachers perceive their relationships with different stakeholders, such as students (Clarke & Newman, 2006). Literature has revealed that teachers have multiple identities, including the manager, entrepreneur, and mentor (Dollinger et al., 1996). However, all these identities are focused on traditional conceptions of teacher professionalism (Furling, 2000). This study posits that identities are shaped by planetary flows of energy, information, and materials (physical, ecological, chemical, biological, geological, and climactic, Bauman, 2020). Therefore, the teacher's professional identity is also embedded in planetary systems that harbor all types of self-protection; such as nationalism, economic imperialism, colonialism, and ecological destruction (Côté, 1996; Hofstede, 1984). This paradigm shift influences the development of the teacher's identity.

It is vital to expose teachers to new knowledge, skills, and values (Avidov-Ungar & Forkosh-Baruch, 2018; Johnson et al., 2020). Teachers are now required to refer to the outside world when making curriculum and pedagogical decisions (Furling, 2000). According to the educational standards, teachers have personal poly-identities and encompass all the competencies that correspond to a modern representation (Johnson et al., 2020; Sachs, 2001). Researchers have outlined three identities that connect the multicultural personality and the professional orientation of the future teacher. These identities are ethnic, civic, and religious (Avidov-Ungar &

Forkosh-Baruch, 2018; Bauman, 2020; Sachs, 2001). The ethnic, civic, and religious identities are formed only on spiritual and moral grounds. These identities are essential in unifying ethnicity, nationalism, citizenship, social nihilism, planetary thinking, and cosmopolitanism (Bauman, 2020; Fine, 2009).

It is necessary to take a holistic approach when forming ethnic, civic, and religious identities. However, previous research has shown that such identities are subjective and cannot be examined empirically (Gidley, 2007; Goldhagen, 2019; Wyly, 2015). A few studies have demonstrated that categorizing the characteristics into components may be a viable solution (Avidov-Ungar & Forkosh-Baruch, 2018; Sachs, 2001). Therefore, the current research has created structures, methods, and techniques to develop and evaluate the future educator's planetary identity. This system consists of three structural components: cognitive, affective, and regulatory. The cognitive component is the knowledge of world culture, politics, economics, and history; the affective component is the emotional and sensual perception of the world. The regulatory component is the individual's behavioral sphere.

Table 1 outlines the components, criteria, and indicators of the future educator's planetary identity formation. The formation of the planetary identity occurs at three levels; high, medium, and low. The future educator's planetary identity has depth, volume, periodicity, and integral reproduction of all indicators in the structure at a high level. The future educator identifies shallow, nonsystematic, non-integral indices in the components' structure at the medium level. Finally, the future educator's indicators are reproduced at a low level and have the minimal embodiment of planetary identity characteristics.

1.2. Purpose of study

The current study aims to study the structure of the planetary identity of personality and integrate this identity into the syllabus. Based on the arguments raised above, we examine the planetary identity of the future educator based on the following research questions;

RQ1: Can planetary identity be conceptualized concerning the future teacher?

RQ2: Can the education system develop the personality of a multicultural teacher?

RQ3: Can cultural pluralism influence the formation of the planetary identity?

2. METHOD AND MATERIALS

2.1. Participants

Four hundred forty-eight students from a large university in Kazakhstan participated in an experiment. The participants were informed that the study was to investigate their perceptions of their locality and the world. They were also informed that participation in the study was voluntary, and they could opt out of the experiment at any stage. Also, the participants were told that their feedback was confidential. After that, the participants signed consent forms and proceeded with the experiment.

2.2. Data collection tools

*Planetary identity***:** To examine the personal characteristics, the participants rated their social distance and ethnic stereotypes (autos and hetero-stereotypes). These variables have been used in previous studies (Borg & Alshumaimeri, 2019; Katz-Navon & Erez, 2005).

Control variables: The participants provided their inter-ethnic contacts, education levels, empathy, subjective control, sociability, and satisfaction with selected professional activity. These control variables have been shown to influence an individual's planetary identity (Avidov-Ungar & Forkosh-Baruch, 2018; Sachs, 2001).

2.3. Procedure and analysis

First, the researchers assessed the teachers whose core tasks are ethnocultural, multicultural, and global education. This assessment highlighted the teachers' characteristics and later helped define the gap between the current characteristics and the future teacher's typical characteristics. The researchers also carried out a content analysis of standard programs, textbooks, and manuals on social and humanitarian disciplines.

Second, the researchers randomly assigned 448 participants into four groups; Experiment 1 group (E1; *n*=112), experiment 2 group (E2; *n*=112); Control Group 1 (C1; *n*=112), and Control Group 2 (C2; *n*=112). First and second-year students in the experiment group (E1) were trained on the ethnic component of planetary identity during their ethnocultural class. At the same time, third and fourth-year students in the experiment group (E2) were trained in the dominant direction during the inter-ethnic communication, multicultural education, and theories of cultural pluralism courses. The experiment's final section showed the dynamics of forming students' planetary identities in experimental and control groups.

3. RESULTS

3.1. RQ1: Can planetary identity be conceptualized concerning the future teacher?

As per Table 1 and Table 2, a multicultural teacher's characteristics were rated based on three structural components: cognitive, affective, and regulatory. These components were rated before and after the experiments. These findings answer the first research question by stating that the future teacher's planetary identity can be conceptualized and empirically tested.

3.2. RQ2: Can the education system develop the personality of a multicultural teacher?

The results of the experimental work are reflected in Tables 2-3 and Figures 2-4. As shown in Figures 2-4, the experimental groups' results, compared to the control groups, showed weak dynamics at the expense of traditionally taught disciplines, significantly exceeding the formation of future teachers' planetary identity. The control section results showed that the building levels of students of experimental groups' planetary identity were steadily advancing in all indicators relative to the initial state (Experiment 1 and Experiment 2). These results answered our second research question by proving that incorporating planetary identity characteristics in the education system can develop teachers' and students' personalities.

3.3. RQ3: Can cultural pluralism influence the formation of the planetary identity?

As shown in Tables 2-3 and Figures 2-4, a high level of formation of the planetary identity in all indicators prevailed in the experimental group E-1, compared to the experimental group E-2. These groups differed in the students' courses, whereby experimental group E1 was taught the ethnic values of planetary identity during their ethnocultural class. In contrast, experimental group 2 was trained in the dominant direction during the pedagogical ethics of inter-ethnic communication, multicultural education, and theories of cultural pluralism course. There are minor differences in terms of average and low levels of formation of the planetary identity of all the indicators in the experimental groups that can be attributed to cultural pluralism. Although all the groups showed an increment in forming the future teacher's planetary identity, significant changes were shown in the experimental groups. Therefore, these findings answer our third research question by proving that cultural pluralism influences planetary identity formation.

4. DISCUSSION

The results revealed that it is possible to integrate educational leadership, international education, and development (Sagee, 2014). Using college student samples, the study linked the theory of modes (Sagee, 2014) to develop teachers' planetary identity in a multicultural context. These findings align with Gardner-McTaggart's (2022) the study that linked the teaching profession with digital evolution. When planetary identity characteristics were incorporated into various courses, the students showed improvement in their cognitive, affective, and regulatory components.

Second, this paper answers Avidov-Ungar & Forkosh-Baruch's (2018) call to disentangle the teaching profession's paradoxes and the development of their identity. This study revises the teacher's professional identity by highlighting their role as planetary leaders. Previous research has mainly focused on the teaching

profession's intensity (Avidov-Ungar & Forkosh-Baruch, 2018) and its classroom practices (Sachs, 2001). After analyzing the study results, we can conclude that developing new approaches and actively using them in higher education is necessary to form planetary identities. This study extends previous research by exploring planetary concerns that influence the teacher's ethics and spirituality. For example, it is possible to create new courses that aim to create a future teacher's planetary identity. These courses allow cultural studies to evolve into multicultural education (Bauman, 2020).

In this era, understanding and integrating human values as a solution to global problems is inevitable. It is essential to improve interactions among individuals. Quality social exchanges enhance creative solutions to disasters (e.g., environmental crisis, inter-confessional and interethnic conflicts, Ford, 2000). Therefore, the teacher plays a vital role in the formation of a planetary identity among young children. Despite all these revolutionary findings, this study had its limitations that could be addressed in future studies.

The study evaluated planetary identity based on specific criteria and character. Results from other studies may be influenced by different identities (cultural, professional, social) in their evaluation. Other studies probably use other variables or planetary identity measures and may observe divergent relationships in their studies (Goldhagen, 2019; Wyly, 2015; Al Rabady, 2024). However, adopting the system developed in this study may minimize these contradictions as it follows a specific procedure. Although the study sample and design were specific to planetary identity and context, future studies may use the proposed criteria to enhance the study's generalizability.

The study used an experimental design that consisted of two groups (experimental and control groups). Studies have used similar research methodologies (Avidov-Ungar & Forkosh-Baruch, 2018; Grandzol & Grandzol, 2011). However, the development of identities cannot be surmised in a single study. Professional identities are complex, and their evolution is a never-ending recursive process (Avidov-Ungar & Forkosh-Baruch, 2018) that depends on all stakeholders' cooperation (Sachs, 2001). Future studies should incorporate secondary data or longitudinal studies to enhance the accuracy of the phenomena under study.

The study also highlighted three levels of identity formation (e.g., high, medium, and low) but did not conceptually justify these levels. While identity formation has between-subject and within-subject differences, these findings' interpretations should be made with caution. Although planetary identity formation can be evaluated quantitatively, qualitative research must examine these variations.

The study had a sample size of four hundred and forty-eight participants, which is way above previous studies (Bradberry & De Maio, 2019; Grandzol & Grandzol, 2011; Nguyen et al., 2020), but future research may carry out a multi-level study of both teachers and students for the generalizability of the findings. Finally, the study developed criteria for evaluating the teacher's planetary identity. These criteria were adapted from previous studies (Borg & Alshumaimeri, 2019; Katz-Navon & Erez, 2005) but were not validated before the survey. Future studies may validate these criteria and develop a scale that can be utilized in empirical studies. The current study has provided a system of measures to evaluate the future educator's planetary identity. This system consisted of three structural components: cognitive, affective, and regulatory. Future research may build on these measures to examine them in multicultural contexts.

5. CONCLUSION

In conclusion, this study highlights the importance of integrating planetary identity into teacher education programs, demonstrating that it can significantly enhance the professional identity of future educators. By incorporating courses on ethnic values, multicultural education, and cultural pluralism, the study found that students in the experimental groups showed greater development of planetary identity compared to those in the control groups.

These findings suggest that the education system can effectively cultivate a global-minded, multicultural perspective in teachers, which is crucial for navigating the complexities of a globalized world. The study also underscores the potential of planetary identity to shape not only teachers' professional roles but also their

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ethical and cultural awareness. Future research should build on these findings to explore the long-term impact of planetary identity development and refine the methods for assessing it in diverse educational contexts.

Conflict of interest: All the authors declare that they have no conflict of interest.

Ethics declarations: All procedures performed in the study followed the National Research Committee's ethical standards and the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Informed Consent: Informed consent was obtained from all individual participants included in the study. It consisted of the following elements: the purpose of the study, a statement regarding the confidentiality and anonymity of participants, and a statement regarding the participant's right to withdraw their consent at any time.

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