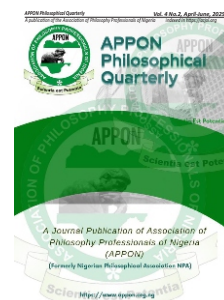


**ANDREIALEINIKOV'S CREATIVE
PEDAGOGY: LEVERAGING
ARTIFICIAL INTELLIGENCE FOR
PRAGMATIC EDUCATION IN NIGERIA**

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ABSTRACT

This study explores the integration of Artificial Intelligence (AI) and Andrei Aleinikov's creative pedagogy to address the theory-practice gap in Nigeria's education system. The emphasis on theoretical knowledge over creativity and technical skills has resulted in incompetent graduates. To bridge this gap, this research examines the effectiveness of AI-enhanced creative pedagogy in promoting pragmatic education. Using the method of critical analysis and interpretation, this study investigates how AI-facilitated creative pedagogy fosters functional, self-reliant education, addressing Nigeria's educational challenges. Findings indicate AI-integrated creative pedagogy enhances pragmatic learning by connecting theoretical concepts to practical skills, thereby bridging the theory-practice divide. This research contributes to existing knowledge by highlighting AI-driven creative pedagogy's potential in cultivating critical thinking, self-reliance, and 21st-century skills among students and teachers. The study recommends integrating AI-enhanced creative pedagogy into the curriculum and conducting further research on its effectiveness. The adoption of AI-infused creative pedagogy has significant implications for Nigeria's education system, producing competent, self-reliant graduates equipped for the labour market. This study provides valuable insights for educators, policymakers, and stakeholders seeking to revitalize Nigeria's education system, demonstrating the viability of artificial intelligence and creative pedagogy in addressing educational challenges and promoting skills-based education.

Keywords: Creative Pedagogy, Artificial Intelligence, Theory-Practice Gap, Pragmatic Education, Self-reliant Learning, Nigerian Education System

Introduction

Unquestionably, education is a vital catalyst for societal growth and development, resonating with the principles of reconstructionism. The philosophy of reconstructionism contains two major premises: first; that society is in need of constant reconstruction or change, and the second; such social change involves both a reconstruction of education and the use of education in reconstructing society.¹ Regrettably, Nigeria's education system, however, faces a critical challenge: bridging the gap between graduates' credentials and competency. To this end, stakeholders, parents, and employers are urging a comprehensive overhaul of Nigeria's education system, encompassing curriculum and pedagogical reforms. This study addresses the pivotal question: What type of education can foster societal development and advancement?

To address the pressing need for educational reform in Nigeria, this research advocates for a practical and pragmatic approach to education that fosters students' creativity and self-reliance. This is crucial for Nigeria's development, as the current education system faces significant challenges in preparing students for the complexities of the 21st century. To achieve a functional, pragmatic, and self-reliant education system in Nigeria, this research proposes integrating Andrei Aleinikov's creative pedagogy with Artificial Intelligence (AI). Creative pedagogy is a learning and teaching strategy that focuses on cultivating creative thinking, problem-solving, and innovative skills in students. By teaching students how to learn creatively, this approach equips them with essential skills to navigate complex challenges and adapt to an ever-changing world.

On the other hand, Artificial Intelligence (AI) is revolutionizing education globally, and Nigeria is no exception. AI-powered

adaptive learning systems tailor education to individual students' needs, while AI-based virtual tutors provide personalized support. AI-assisted grading systems also reduce teachers' workload and enhance accuracy. However, Nigeria faces unique challenges in harnessing AI's potential, including infrastructural limitations, digital divides, and cultural barriers.

By combining creative pedagogy with AI, this research aims to establish a transformative educational framework that prepares Nigerian students for success. This integrated approach will bridge the theory-practice gap, develop competent and self-reliant graduates, drive innovation and entrepreneurship, and enhance Nigeria's global competitiveness. Ultimately, this research seeks to contribute to the development of an education system that fosters creative, innovative, and self-reliant individuals equipped to drive Nigeria's growth and development.

To achieve the study's objectives, this research is structured into six sections. The study begins by clarifying concepts such as creativity, pedagogy, and artificial intelligence. It then articulates Andrei Aleinikov's creative pedagogy, discusses pragmatic education and self-reliance through creative pedagogy and AI, and examines the Nigerian educational system in search of a creative pedagogy approach, before concluding with the research.

What is Creative?

The term "creative" can be used interchangeably with "creativity". However, it is important to note that "creative" functions as an adjective, while "creativity" serves as a noun. The concept of creativity has garnered various connotations depending on the specific context in which it is employed. Regardless of the multitude of definitions attributed to creativity, there is a common denominator that is consistently

¹ Ozmon Howard & Craver Samuel, *Philosophical Foundations of Education*, (London: Merrill Publishing Company, 1990):162.

present, and that is the notion of something being “new”.² This observation is supported by the research conducted by Odionye and Ugonna.

According to Alfred North Whitehead, creativity is the state of producing something novel or original.³ By this definition, creativity means to produce something unique or something that stands out. In other word, creativity is the ability to produce something new through imaginative ingenuity and skills, whether a new solution to a problem, a new method or device, or a new artistic objects or form. The term generally refers to a richness of ideas and originality of thinking. In our age more than ever, there are creative efforts, creative resources and creativity augmented by science and technology. Most importantly and of special need, there is an application of creativity to improve the effectiveness of teaching and learning processes. Creativity is any act, idea, or product that changes an existing specialty or that transforms an existing realm into a new one.

Consequently, creativity, the quality of being creative or the ability to create, is defined as the tendency to generate or appreciatively recognize ideas, alternatives, or possibilities that may be useful in solving problems, communicating with others, entertaining ourselves and others. Creativity, therefore, is a concept of achievement which abhors mediocrity, tepidity, patchiness, jaggedness, poorness of scholarship and care-free approach to inspired activities.⁴ Creativity involves the production of novel, fresh and useful ideas

and products.⁵ It encouraged enterprise, productivity and fecundity. It is a phenomenon whereby something new and valuable is created such as an idea, a joke, a literary work, a painting or musical composition, a solution, an invention etc.). Creativity, therefore, spells novelty, uniqueness, innovation, newness.⁶

When Creativity is applied in education, it refers to the ability to think and work in new and innovative ways, as well as the ability to come up with original and unique ideas. This can be fostered through various methods, such as encouraging experimentation and exploration, providing opportunities for self-expression and encouraging critical thinking and problem-solving. Creativity can also be incorporated into different subjects and activities, such as writing, art, music, and science. Additionally, it can be used to improve the way that learning is delivered, such as through project-based learning and other hands-on, experiential methods.

Creative teaching involves using a variety of techniques and strategies to engage students and make learning an interactive and enjoyable experience. This can include using hands-on activities, incorporating technology, posing open-ended questions, and encouraging critical thinking. Additionally, creative teaching may involve creating a classroom environment that is inclusive, supportive, and encourages experimentation, exploration, and risk-taking.

² Odionye Ebele & Ugonna, N.P. “Promoting Critical Thinking and Creativity in Nigeria for Economic Diversification.” *Nigerian Journal of Philosophers of Education Association of Nigeria*, (Vol. 28, No.1, 2017):99-105.

³ Whitehead North. *Process and Reality* (New York: MacMillian and Company, 1930):32.

⁴ Guilford Paul, *The Nature of Human Intelligence*, (McGraw-Hill, 1967), 138

⁵ Mumford Michael, “Where have we been, where are we going? Taking sock in creativity Research.” *Creative Research Journal*, (Vol.15, Nos 2-3, 2003): 107-120.

⁶ Onebunne Jude, Igwe P.K & Okpaneje, O.T., “Critical Thinking, Creativity and Linguistic Competence Panacea to Ineffective Teaching and Improper Learning.” *Nigerian Journal of Educational Philosophy*, (Vol. 28, No.1, 2017):72-82.

What makes a person creative?

The following can identify a creative person:

- a. The things that make a person creative is *the way a human think*. A person is more creative if he/she imagines something or creates something no other person has thought of. For example, Albert Einstein was so creative. We are all creative and there is no one who is left not creative. A person is creative by his or skills.
- b. a person is more creative when *they like to solve problems*. They like solving a problem that is hard or easy. They like solving cases that are hard to solve.
- c. a person is more creative when *he is his own worst critic*.
- d. a person is most creative when he *asks a lot of questions*. A stagnant mind devoid of curiosity does not have the capacity to create.
- e. a person is most creative when he *takes time to think*. Your brain is your greatest asset.⁷

Though not exhaustive, these are what make a person creative.

What is Pedagogy?

Pedagogy can be defined as a disciplinary field that delves into the comprehensive study of education and the various methods employed in the process of teaching. Originating from the Greek word "*paidagogia*," meaning "to guide a child," it is rooted in "*paidagogos*," referring to a teacher or guide, particularly of boys. This field explores the diverse approaches and strategies used in education to facilitate learning and development. In the context of Greco/Roman culture, a *paidagogos* was a slave who held the immense responsibility of educating young boys. To put it

succinctly, pedagogy encompasses the crucial function, esteemed profession, and meticulous practice of a pedagogue, who is essentially an erudite individual dedicated to the instruction and guidance of children and adolescents. Consequently, in ancient Greece, the individual entrusted with the paramount task of educating the youth was commonly referred to as a '*Pedagogue*'.

Thus, it is discernible that the term pedagogy is intrinsically linked to this concept, serving as the methodological approach to teaching employed by a pedagogue. According to *The Greenwood Dictionary of Education*, the term "pedagogy" encompasses the art and profession of teaching. It encompasses the manner in which a teacher imparts knowledge, the strategies employed by a teacher, and the specific approach to teaching that a teacher selects. Additionally, it also refers to the preliminary training or guidance that aspiring teachers receive in teacher education programs. Consequently, pedagogy can be perceived as the theoretical aspect of education that equips teachers with an understanding of the objectives, processes, and outcomes involved in the teaching and learning process. Pedagogy is the study of teaching methods and learning processes. Its significance in education cannot be overstated. Freire Paul opines, it is essential in education because it helps educators develop effective strategies to impart knowledge and facilitate learning.⁸ By applying sound pedagogical principles, teachers can create well-structured lesson plans that cater to their students' needs, leading to better learning outcomes. Effective teaching practices informed by pedagogy result in an enriched learning experience. The relationship between teaching and pedagogy highlights the importance of pedagogy in education.

According to *The Greenwood*

⁷ Sternberg, J. Robert & Lubart I. Todd. "The Concept of Creativity: Prospects and Paradigms." In Sternberg Robert (Ed.), *Handbook of Creativity*. (Cambridge University Press, 1999):15.

⁸ Freire Paul, *Pedagogy of the Oppressed*, (Seabury Press, 1970), 75.

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An Articulation of Andrei Aleinikov's Creative Pedagogy

This section explores Andrei Aleinikov's creative pedagogy, beginning with a brief overview of his life and contributions. Born on March 13, 1948, in Sverdlovsk, Russia, Aleinikov is a distinguished educator and researcher known as “Dr. Andy.” He is pioneered various innovative approaches, including *Creative Pedagogy*, *Creative Andragogy*, and *Creative MetaPedagogy*. Aleinikov has also developed the Genius Education Methodology (GEM) and authored a best-selling book that holds a Guinness World Record. His work has earned him recognition as a leading figure in education.

According to Andrei Aleinikov, the originator of Creative Pedagogy, *Creative Pedagogy* is the science and art of creative teaching.⁹ Creative pedagogy is a branch of pedagogy that is opposed to Critical pedagogy, which emphasizes the leading role of creativity for successful learning. In its essence, creative pedagogy teaches learners how to learn creatively and become creators of themselves and creators of their future.¹⁰

Creative pedagogy which is an educational trend that was created over thirty years ago, 1989 has spread extensively over the world. It has become a major theme in education because it involves teaching and learning. Also, creative pedagogy became the only trend in education that is technologically-defined and scientifically-based. When united with Creative Andragogy, it became Creagogy—a generic science of creative education. (Aleinikov, 2020:127). Furthermore, Andrei Aleinikov writes:

Creative pedagogy that includes educational influence on the learner for acquisition of certain study material (subject) [as pedagogy in general] and differing from the above by the fact that in order to achieve higher efficiency of learning, the pedagogical influence is provided on the background of centrifugal above-the-criticism mutual activity in which the learner is raised from the object of [pedagogical] influence to the rank of a creative person, while the traditional (basic) study material is transformed from the subject to learn into the means of achieving some creative goal, and the extra study material includes the description and demonstration of the heuristic methods and techniques.¹¹

Thus, creative pedagogy is an approach to learning and teaching that centres around teaching the learner how to learn creatively. Further, this approach also teaches students how to create in general and provides important innovative skills to students as they learn. This approach is differentiated

⁹ Aleinikov. G Andrei, “On Creative Pedagogy”. *Higher Education Bulletin*, (Vol.12, 1989):29-34

¹⁰ Aleinikov. G Andrei, *Creative Pedagogy. Encyclopedia of Creativity, Invention, Innovation, and Entrepreneurship*, (Springer: New York, NY, 2013):327.

¹¹ Aleinikov, *On Creative Pedagogy*, 29-34

from creative education, which often focuses on creativity as a subject, as it can be applied to any subject or content. This approach to pedagogy is in direct opposition to critical pedagogy.

Creative pedagogy is teaching that enhances creative development via three interrelated elements: *creative teaching*, *teaching for creativity*, and *creative learning*. While *Creative teaching* is defined as educational exchanges facilitated by the teacher that are “unique, customized and meaningful”¹², and that are exciting, engaging and innovative.¹³ Creative teaching is complex, involving a broad range of skills, experience, and perspectives,¹⁴ *teaching for creative* is defined as forms of teaching that are intended to develop young peoples' own creative thinking or behaviour and *creative learning* is not memorizing information. It's building knowledge and developing skills using creative techniques. Rather than dictating how information should be absorbed, creative education— guides the learner through the instruction process using creative methods. In addition, Aleinikov states:

Creative Pedagogy provides an explanation, highlighting that creativity is much broader than the arts. It is the self-multiplying reflection: reflection squared (the reflection of reflection), reflection cubed, reflection quadrupled. Creativity is the only feature that separates humans from the animal world, and it is exactly what accelerates

the development of the human world over the speed of development in the “natural” animal world. The scientific view on creativity states that it is the acceleration of the organization process.¹⁵

Creative pedagogy is an art which helps the learners to learn creatively with transforming the conventional classroom into a creative learning environment. Through this pedagogy, it allows the learners to innovate, create, and take risks and to think imaginatively. Thus, in creative pedagogy, there is divergent thinking, autonomy, curiosity and interests. Thus, for Andrei Aleinikov, the goal of Creative Pedagogy is to transform any subject class (course, program, school) into a creative teaching process that would produce creative learners (life learners) – much more efficient learners than those produced by traditional school. This transformation of the traditional class (course, program, school) is called “creative orientation.”¹⁶

Finally, Aleinikov Andrei puts the goals of creative pedagogy to education in the following ways:

- 1.a new goal of education (to create a creative learner).
- 2.its own techniques, methods, and methodologies of influencing learners to make them Ideal Learners
- 3.a model of Ideal Education, where creativity and innovation take the upper two levels out of five and methodologies that precisely follow the model

¹²Rinkevich, J. L., “Creative teaching: Why it matters and where to begin. The Clearing House.” *A Journal of Educational Strategies, Issues and Ideas*, (84(5), 2011):219-223

¹³Craft, A. “Approaches to creativity in education in the United Kingdom.” Sefton-Green, J., Thomson, P., K. Jones, & L. Bresler (Eds.), *The Routledge international handbook of creative learning* 2011): 129-139. New York, NY: Routledge domains.

¹⁴Ambrose Don, “Creativity in teaching: Essential knowledge, skills, and dispositions. Creativity across domains”2005.

¹⁵Aleinikov Andrei. *Creative Pedagogy. Encyclopedia of Creativity, Invention, Innovation, and Entrepreneurship*, 327.

¹⁶Aleinikov Andrei. “Creative Pedagogy and Creative Meta-Pedagogy.” *Progress of Education*, (Vol. LXV, No 12, 1991):274.

- 4.a way to begin deeper than the traditional teaching process, at the nonverbal level of communication to reset the mindset
5. a way to develop verbal communication into Super Effective Communication
- 6.creativity-boosting methods that apply to the learning material, thus engaging the vast potential of human being growth that usually remains untapped
- 7.a way toward innovations, explained differently and even some strategies for living a genius life
- 8.Inspired and nurtured as creative learners, students perform at their best, which is why the outcomes of learning are so different.¹⁷

Pragmatic Education through Creative Pedagogy and Artificial Intelligence

Generally, Pragmatism can be characterized as a unique and distinct brand of philosophy that emerged in the United States during the latter part of the 19th century. This particular school of thought is often associated with the American character, as Americans have a historical tendency towards making pragmatic choices that have practical implications.¹⁸

Pragmatism grew out of empiricism, emphasizing sense experience and reality. It is a philosophy of *workability*. Pragmatism is a philosophy of action and creativity.¹⁹ It advocates for critical thinking, flexibility, and adapting to change. The philosophy's core concepts include the reality of change, relativity of value and truth, and the social

and biological nature of humanity. Pragmatism asserts that individuals are the measure of all things and should prioritize practical problem-solving.²⁰

Pragmatic choices therefore, are choices that effect practical consequences.²¹ Pragmatism can also suggest many things: a methodological approach for solving problems in sciences and humanities; a term used by intellectual historians to describe a particular idea at a particular moment in American history and so on. To this end, Richard Popkin and Avrum Stroll state that pragmatism is first of all a method for solving or evaluating intellectual problems, and a theory about the kinds of knowledge we are capable of acquiring.²²

Therefore, pragmatic education, rooted in the philosophy of pragmatism, offers a transformative approach to learning. Coined by Charles Sanders Peirce (1839-1914), pragmatism emphasizes action, workability, and practicality. Derived from the Greek word "*pragma*," meaning "work" or "action," pragmatism encourages seeking processes that achieve desirable ends. Leading philosophers Charles Sanders Peirce, William James, and John Dewey pioneered this school of thought, also known as experimentalism, functionalism, and instrumentalism.²³

In the context of education, pragmatism advocates for experiential learning, freedom of choice, and hands-on interaction with the environment.²⁴ Of the three popular figures of the pragmatic movement; Charles Sanders Pierce, William James and John Dewey, one can affirm that John Dewey type

¹⁷Aleinikov Andrei, "Creative Pedagogy: 30 Years and Counting (In Foreign Language Education and Beyond)." *International Journal of Education* (Vol. 12, No.1, 2020):133.

¹⁸Nkemnole Stanley, "Rorty's Neo-Pragmatism: Reshaping Human Condition with Our Thoughts." *Ekpoma Review*, (vol.3. No.1, 2016):189-203.

¹⁹Mercier Jean, *From Socrates To Wittgenstein*, (India: Asian Trading Corporation, 2002):86-87.

²⁰Chukwuma R.A. & Ebeigbe V., *Philosophy of Education For Beginners*, (Agbor: Izinabor Publications, 2012):82.

²¹Nkemnole Rorty's Neo-Pragmatism, 189-203.

²²Popkin Richard and Stroll Avrum, *Philosophy Made Simple*, (New York: Broadway Books, 1993):328

²³Igbiwu G.E. *Basic Philosophy of Education*, (Agbor: Krisbec Publications, 2004):35.

²⁴Knight George, *Philosophy & Education an Introduction in Christian Perspective*, (Michigan: Andrews University Press, 2006):72-73.

of pragmatism has far-reaching applications in particularly in education. Dewey criticized traditional educational techniques for focusing on factual information rather than problem-solving skills. Instead, he proposed developing critical thinking and adaptability to prepare students for an ever-changing world.

Dewey sees school as instrument of achieving the goals of education and this possible through experiences.²⁵ He advocated for a gradual shift from direct experiences to vicarious learning methods, building upon significant experiences in everyday life. Pragmatic education equips students with problem-solving skills to cope with environmental challenges. For Akinsanya, since pragmatism is basically interested in the practical usefulness or relevance of education, it is expected that the education given to a child will equip him/her with problem solving skills so as to cope with the constant challenges of his / her environment.²⁶

The Philosophy of Self-reliance, AI and Creative pedagogy in Nigerian Education

The concept “self-reliance” (which came into a limelight barely few decades ago) has gained prominence in the political vocabulary of the so-called Third World. According to Isaac Igwe, self-reliance is a sine qua non for the African search for authentic education in contemporary period. It is a philosophy or principle of “Do it Yourself.”²⁷ Self-reliance is a philosophy that emphasizes personal responsibility,

autonomy, and practical skills. According to Kola Ogundowole, self-reliance is a world view guiding the restructuring of the old and establishment of a new world economic order.²⁸ This ideology stresses the development of human potentialities, contributing to societal growth. Therefore, for any development to take place, it has to be inward driven and as such Rahumbuka, opines that, the concept of education for self-reliance is also about *self-confidence, independence, responsibility and democratic involvement*. Self-reliance is problem-solving philosophy of education.²⁹ So, just as the pragmatism and reconstructionism of John Dewey is for the West, so is self-reliance for the African states.

According to Okoro, education for self-reliance simply means education for youth enlightenment and empowerment. In other word, in education, self-reliance promotes problem-solving, creativity, and pragmatism.³⁰ Julius Nyerere's education for self-reliance model emphasizes self-independence, democratic involvement, and acquisition of knowledge and skills. This approach converts schools into economic and educational communities, teaching students new skills and realistic attitudes toward physical labour. Education for Self-Reliance gives individual democratic involvement and it liberates one from the over-reliance of a person on what the society can offer, instead of what an individual can offer the society. It deals with acquisition of knowledge cum skill. That is, matching

²⁵ Aggarwal J. Keshoram & Gupta S., *Great Philosophers and Thinkers on Education*, (Delhi: Shipra, 2014):127-128.

²⁶ Akinsanya Patrick, *Philosophizing About Education*, (Lagos: University of Lagos Press and Bookshop Ltd, 2015):68-68.

²⁷ Igwe Isaac, “Ogundowole's Self-Reliancism as a Paradigm for Africa's Education.” *Bachelor of Arts Degree Project*, (University of Lagos, 2010):iv.

²⁸ Ogundowe Kola, *Philosophy and Society*, (Lagos: Correct Counsels Ltd, 2004):90.

²⁹ Rahumbuka Gabriel, *Towards Ujamaa: Twenty Years of Tanu Leadership*, (Dar es Salaam: East Africa Literature Bureau, 1974):19.

³⁰ Okoro Chigozie, *Epistemology and Philosophy of History: A Critical Reader*, (Ogun: Babcock University press, 2011):5.

³¹ Sanga Isaac, “Education for Self-Reliance: Nyerere's Policy Recommendations in the Context of Tanzania.” *African Research Journal of Education and Social Sciences*, (Vol.3, No.2, 2016):1-7.

theory with practice.³¹

Nyerere asserts that self-reliance is not a vague slogan but a principle for every citizen, group, and nation. A self-reliant individual cooperates with others, is willing to help and be helped, and earns their livelihood. Education should nurture thoughtful discernment, creative thinking, and problem-solving skills.³² Thus, the aims of self-reliance education include: (a) *Problem-solving*: Addressing societal and individual challenges. (b) *Relevance to society*: Educating learners to contribute to community development. (c) *Integration into society*: Preparing individuals to serve their communities. (d) *Work orientation*: Preparing specialists in various fields. In other words, Self-reliance education frees individuals from alienation, reinstating self-esteem and African values. It promotes mass reorientation, considering African potentials for authentic development.

Therefore, integrating Andrei Aleinikov's creative pedagogy with Artificial Intelligence could potentially enhance pragmatic education in Nigeria, offering a promising area for future research and development. Aleinikov's approach emphasizes innovative thinking, creativity, and self-directed learning. AI facilitates personalized learning, intelligent tutoring systems, and enhanced assessment.

By combining creative pedagogy with AI, Nigeria's education system can foster: *Personal responsibility, Autonomy, Self-awareness, Practical skills, Critical thinking, Resourcefulness, Resilience and Entrepreneurial spirit*. This integrated approach prepares students for the challenges of the 21st century, driving Nigeria's growth and development.

Nigerian Educational System in Search of Creative Pedagogy Approach

The primary objective of this present section is to provide a concise and comprehensive elucidation of the educational system in Nigeria, while also putting forth the notion of creative pedagogy as a viable remedial approach. It is essential to commence the discourse by shedding light on the Nigerian system of education, which is predominantly characterized by a certificate-oriented framework and operational modality, rather than being centered on competence. This system places a significant emphasis on the acquisition of "paper qualifications" as opposed to the cultivation of knowledge, skills, and technical expertise. It is not uncommon for the focal point to revolve around the extent to which an individual excels in an examination, rather than their depth of understanding in a specific field of study. Consequently, many students resort to rote memorisation in order to merely attain a passing grade in examinations, only to subsequently forget the information shortly thereafter. These individuals may achieve commendable academic results and obtain impressive certificates, but regrettably, they are fundamentally lacking in the essential knowledge required for future gainful employment opportunities.

There are also other students who resort to the act of cheating during an examination due to their sole pursuit of achieving high grades rather than acquiring the type of knowledge that grants them the esteemed authority of competence in their respective fields of study. Consequently, the labour market becomes inundated with graduates who not only lack the aforementioned authority of competence, but also find themselves utterly perplexed when it comes to generating employment opportunities for themselves.³³ Therefore, it can be observed that students tend to perceive education

³²Nyerere Julius, "Uhuru na Ujamaa: Freedom and Socialism." *A Selection from Writings and Speeches 1965-1967*, (London, New York and Dar es Salaam: Oxford University Press, 1968):151-152.

³³Irabor P. Benson & Damilola G. Ola-Obitusin "Hey Mr. Teacher My Child Must Pass This Examination At All Cost! On the Cheating Culture and Africa's Post-Colonial Education." *Sapientia Foundation Journal of Education, Sciences and Gender Studies (SFJESGS)*, (Vol.2 No. 2, 2020):39-48.

merely as a means of securing lucrative paid employment, rather than as a pathway towards personal growth and self-improvement, as well as the attainment of their full potential, thus enabling them to contribute meaningfully to the overall development of society.

The concept of competence-based education can be described as synonymous with know-how or skill. It necessitates an individual's capacity to possess the knowledge and skill to perform a given task. It refers to the quality or state of being functionally adequate, wherein one has sufficient knowledge, strength, and skill. As noted by Nwanyanwu, competence primarily pertains to the ability to proficiently execute a task, assessed against a predetermined standard, particularly through experience and training.³⁴ Competence is manifested through various forms, such as knowledge, ability, know-how, and skill. The implementation of a competence-based education system aids in preparing students for the workforce and fostering self-reliance.

Okoro states that competence-based education aids in the development of critical analysis skills, the application of theory to practice, the formation of a vision for a better society, the exploration of controversial issues, and the offering of technical solutions.³⁵ In summary, competence-based education aims to equip students with the ability to apply theories to practical situations. Additionally, a competence-based educational system aims to help students acquire critical thinking skills, self-reliance, moral behavior, and creative thinking styles as tools for meaningful contribution to society's growth

and development.³⁶

Unfortunately, the Nigerian educational system itself lacks the capacity to adequately prepare students for the skills and competencies that are necessary for gainful employment in the labor market or for the creation of their own entrepreneurial ventures. According to Actoria in order for an education system that is based on certificates to be relevant to the labour market, it must incorporate a focus on competency-based education within the school curriculum.³⁷ Roselin argues that the primary aim of education should be to cultivate in students the strategic capability to effectively address the practical challenges that they encounter in their daily lives, both within their immediate surroundings and in the broader external environment.³⁸ Therefore, the process of learning should be grounded in societal realities and should serve as a conduit for introducing the world and the demands of the labor market into the classroom. Consequently, students should be equipped with the necessary tools to develop innovative skills, a problem-solving mindset, and the capacity for self-growth.

To address this, Nigeria needs a pragmatic education system focused on competence-based education, emphasizing know-how and skills. Competence refers to the state of being functionally adequate, possessing sufficient knowledge, strength, and skill. A competence-based education system prepares students for the workforce and fosters self-reliance. In other word, it is imperative that Nigerian educational system employs innovative and imaginative methods of teaching. It is essential to encourage students to engage in critical

³⁴Nwanyanwu Christian, "The Tension between Certification and Competence in the Nigerian Labour Market." *The Sage Magazine*, (Vol. 28, 2015):30.

³⁵ Okoro, *Epistemology and Philosophy of History*, 12.

³⁶ Regars, F.H., *Examination Malpractice and Quest for Paper Qualification: A Comparative Analysis*, (New York: Don Hean and Company., 2010): 13.

³⁷ Actoria, H., *Academic Life and Social Change*, (London: Noble books, 2012): 11.

³⁸ Roselin P. Jose, "Examination Malpractice and Integrity of Educational Credentials." Canada: (Unpublished lectures on Certificate Education, 4th Edition, 2012): 17.

thinking and utilize their creativity in order to generate fresh and innovative solutions to societal problems and challenges. It is evident that Nigeria requires a practical and effective educational system that caters for the needs of its students and equips them with the necessary skills to thrive in society.

Thus, Andrei Aleinikov's creative pedagogy, leveraging artificial intelligence, offers a viable solution. By integrating AI-driven tools, Nigerian education can shift from teacher-centered to learner-centered, encouraging critical thinking, creativity, and problem-solving. Aleinikov's approach emphasizes practical application, enabling students to develop innovative skills and tackle societal challenges.

The key benefits of Aleinikov's creative pedagogy lie in its ability to cultivate competence, critical thinking, and problem-solving skills. This approach fosters self-reliance, entrepreneurship, and moral behavior, while promoting creative thinking and innovation. By emphasizing practical application, Aleinikov's pedagogy prepares students for real-world challenges.

By embracing Aleinikov's creative pedagogy, Nigeria's education system can undergo a transformative shift. This pragmatic approach will bridge the gap between theory and practice, equipping students with essential skills for employment. It will also foster self-growth, innovation, and societal development, enabling Nigeria to cultivate a competent, innovative, and self-reliant workforce.

Integrating Aleinikov's Creative Pedagogy with Artificial Intelligence in Education

Integrating Andrei Aleinikov's creative pedagogy with artificial intelligence presents a transformative opportunity for Nigeria's educational system. By harnessing the potential of AI-driven tools, Nigerian education can transition from a certificate-based approach to a self-reliant, pragmatic model. This fusion of creative pedagogy and AI will equip students with essential skills, foster innovation, and enhance departmental

efficiency.

The integration of Aleinikov's creative pedagogy and AI will facilitate personalized learning experiences tailored to individual students' needs and abilities, enabling them to learn at their own pace. Adaptive assessments and feedback mechanisms will enhance student evaluation, while intelligent tutoring systems will supplement teacher instruction. Virtual and augmented reality simulations will provide immersive learning experiences, and Natural Language Processing (NLP) tools will improve language skills.

This synergy will cultivate self-reliant graduates equipped with critical thinking and problem-solving skills, creativity, innovation, and entrepreneurship. They will possess practical application and real-world experience, collaboration and teamwork abilities, and data analysis and interpretation skills. Departments will benefit from automated administrative tasks and streamlined processes, data-driven decision-making and policy development, enhanced teacher training and professional development, real-time student performance monitoring and feedback, and improved resource allocation and optimization.

To achieve this vision, Nigeria's educational stakeholders must invest in AI infrastructure and digital literacy programs, develop context-specific AI-powered educational tools, provide teacher training and support for creative pedagogy, and foster collaboration between educators, policymakers, and industry experts.

By embracing this innovative approach, Nigeria can bridge the gap between theory and practice, address societal challenges and promote development, cultivate a competent, innovative, and self-reliant workforce, and enhance global competitiveness and economic growth.

Way Forward: Mindset Reorientation

There ought to be a transformation in the way students think, shifting from being

passive to becoming active participants in their own education, which in turn fosters creativity and facilitates personal growth. In fact, Aleinikov, in his research, observed several challenges faced by adult students, including high rates of dropping out, low academic performance, and a lack of accomplishment. Upon delving deeper, he discovered that the underlying cause of these predicaments was the students' mindset. Consequently, he successfully managed to alter their way of thinking, transitioning them from having a closed mindset to adopting an open one, from maintaining a negative outlook to cultivating a positive perspective, from being passive learners to actively engaging in the learning process, from displaying disinterest to demonstrating keen interest, and from lacking motivation to being highly motivated. The outcome of this mindset transformation was truly remarkable, with an astounding 96.6 percent of adult students exhibiting exceptional performance.³⁹ Hence, it is imperative that we redirect our focus towards a paradigm shift in the way we approach education, specifically by transitioning from a "traditional" learner mindset to that of a "creative" learner. This shift in mindset has the potential to expand one's horizons, igniting a sense of curiosity and self-expression, fostering personal growth, and ultimately leading to a more efficient acquisition of knowledge, thereby resulting in improved learning outcomes.⁴⁰ He further writes:

Second, I researched and analyzed the problems of education and came to the conclusion that all of them find their way to the student's psychology and are based on the mindset that pre-determines the student's attitude and

motivation. I then put forward a hypothesis that if we (teachers, professors, and leaders) could find methods of mind-setting that would change this attitude and motivation, we would be able to cure the educational "disease" instead of treating the "symptoms" of poor discipline, low interest, and others.⁴¹

The Nigerian students had a preconceived notion about education, primarily focusing on obtaining a certification rather than developing competence. Consequently, their main objective revolves around passing examinations rather than cultivating skills and fostering creativity. It is important to highlight the metaphorical analogy that suggests that the transformation or reorientation of this mindset serves as a preventive and curative measure for the underlying issue, as opposed to merely addressing the symptoms. This notion is supported by the assertion made by Aleinikov.⁴² Moreover, it is worth noting that creative pedagogy holds significant value across all educational disciplines due to its inherent technological and scientific implications.

In conclusion, integrating Andrei Aleinikov's creative pedagogy with artificial intelligence offers a promising solution for Nigeria's educational challenges. By leveraging AI-driven tools and creative pedagogy, Nigeria can transition to a self-reliant, pragmatic education system, empowering students and departments to thrive in the 21st century.

Bibliography

- Actoria, H. (2012). *Academic Life and Social Change*, London: Noble books.
Aggarwal, Keshoram & Gupta S., *Great*

³⁹ Aleinikov, G Andrei, "Creative Pedagogy: 30 Years and Counting (In Foreign Language Education and Beyond)." *International Journal of Education* (Vol. 12, No.1, 2020):1280-129.

⁴⁰ Aleinikov, *Creative Pedagogy: 30 Years and Counting*, 13.

⁴¹ Aleinikov, *Creative Pedagogy: 30 Years and Counting*, 130.

⁴² Aleinikov, *Creative Pedagogy: 30 Years and Counting*, 129.

- Philosophers and Thinkers on Education*. Delhi: Shipra, 2014.
- Akinsanya, Patrick. *Philosophizing About Education*. Lagos: University of Lagos Press and Bookshop Ltd, 2015.
- Aleinikov, Andrei. "Creative Pedagogy" available online at: https://link.springer.com/referenceworkentry/10.1007/978-1-4614-3858-8_13#:~:text=Creative%20pedagogy%20is%20a%20branch,and%20creators%20of%20their%20future , 2020. Accessed on 17 June, 2023.
- Aleinikov, Andrei. On Creative Pedagogy. Higher Education Bulletin, Vol. 12, pp. 29-34, 1989
- Aleinikov, Andrei. "Creative Pedagogy." *Encyclopedia of Creativity, Invention, Innovation, and Entrepreneurship*. Springer: New York, NY, 2013.
- Aleinikov, Andrei. "Creative Pedagogy: 30 Years and Counting (In Foreign Language Education and Beyond)". *International Journal of Education*, Vol. 12, No.1, p.127, 2020.
- Aleinikov, Andrei. Creative Pedagogy: 30 Years and Counting (In Foreign Language Education and Beyond). Available from: https://www.researchgate.net/publication/341201193_Creative_Pedagogy_30_Years_and_Counting_In_Foreign_Language_Education_and_Beyond Accessed Jun 19 2023.
- Aleinikov, Andrei. Creative Pedagogy and Creative Meta-Pedagogy. Progress of Education. Vol. LXV, No.12, July 1991, p. 274; See also, an example of creative orientation - Aleinikov, A.G. (1990) Grammar of Creation and Creation Grammar (Creatively Oriented Theoretical Grammar and History of English). Ministry of Defense Military Institute.
- Ambrose, Don. Creativity in teaching: Essential knowledge, skills, and dispositions. Creativity across domains: Faces of the muse, 281-298, 2015.
- Chukwuma, R.A. & Ebeigbe, V. *Philosophy of Education For Beginners*, Agbor: Izinabor Publications, 2012.
- Craft, A. Approaches to creativity in education in the United Kingdom. In J. Sefton-Green, P. Thomson, K. Jones, & L. Bresler (Eds.), *The Routledge international handbook of creative learning* (pp. 129-139). New York, NY: Routledge domains: Faces of the muse, pp.281-298, 2011.
- Dewey, John. *My Pedagogic Creed*, New York and Chicago: E.L. Kellogg & Co, 1897.
- Freire, Paul. *Pedagogy of the Oppressed*. Seabury Press, 1970.
- Guilford, Paul. *The Nature of Human Intelligence*. McGraw-Hill, 1967.
- Igbiwu G.E. *Basic Philosophy of Education*, Agbor: Krisbec Publications, 2004.
- Igwe, Isaac, "Ogundowole's Self-Reliance as a Paradigm for Africa's Education" in *Bachelor of Arts Degree Project*, University of Lagos, 2010.
- Irabor, Benson & Damilola, Ola-Obitusin. "Hey Mr. Teacher My Child Must Pass This Examination At All Cost! On the Cheating Culture and Africa's Post-Colonial Education." *Sapientia Foundation Journal of Education, Sciences and Gender Studies (SFJESGS)*, (Enugu State University of Science and Technology), Vol.2 No.2, p.39-48, 2020.
- John William Collins & Nancy O'Brien. *The Greenwood Dictionary of Education*, 2nd (ed.) Greenwood Publishing Group, 2011.
- Knight, George. *Philosophy & Education an Introduction in Christian Perspective*, 4th ed. Michigan: Andrews University Press, 2006.
- Mercier, Jean. *From Socrates To Wittgenstein*, India: Asian Trading Corporation, 2002.
- Mumford, M.D. (2003). Where have we been, where are we going? Taking stock in creativity Research, *Creative Research Journal*, Vol.15, 107-120.
- Nkemnole, Stanley. "Rorty's Neo-Pragmatism: Reshaping Human Condition with Our Thoughts." *Ekpoma*

- Review, vol.3. No.1, pp.189-203. 2016.
- Nwanyanwu, Christians., "The Tension between Certification and Competence in the Nigerian Labour Market." *The Sage Magazine*, 28, 2015.
- Nyerere, Julius. *Education for Self-reliance*, Dar es Salaam, Tanzania: Government Printer, 1967.
- Nyerere, Julius. *Uhuru na Ujamaa: Freedom and Socialism. A Selection from Writings and Speeches 1965-1967*, London, New York and Dar es Salaam: Oxford University Press, 1968.
- Odionye, E.A. & Ugonna, N.P. (2017). "Promoting Critical Thinking and Creativity in Nigeria for Economic Diversification" *Nigerian Journal of Educational Philosophy* (PEAN: Philosophy of Education Association of Nigeria), Vol. 28, No.1, pp. 99-105.
- Ogundowe, Kola. *Philosophy and Society*, Lagos: Correct Counsels Ltd, 2004.
- Okoro, Chigozie. *Epistemology and Philosophy of History: A Critical Reader*, Ogun: Babcock University press, 2011.
- Onebunne, Jude, Igwe P.K & Okpaneje, O.T. "Critical Thinking, Creativity and Linguistic Competence Panacea to Ineffective Teaching and Improper Learning" *Nigerian Journal of Educational Philosophy* (PEAN: Philosophy of Education Association of Nigeria), Vol. 28, No.1, pp. 72-82, 2017.
- Ozmon, Howard & Craver Samuel. *Philosophical Foundations of Education* 4th ed., London: Merrill Publishing Company, 1990.
- Popkin, Richard & Stroll, Avrum. *Philosophy Made Simple*. New York: Broadway Books, 1993.
- Rahumbuka, Gabriel. *Towards Ujamaa: Twenty Years of Tanu Leadership*, Dar es Salaam: East Africa Literature Bureau, 1974.
- Regars, F.H. Examination Malpractice and Quest for Paper Qualification: A Comparative Analysis, New York: Don Hean and Company, 2010.
- Rinkevich, J. L. "Creative teaching: Why it matters and where to begin." *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 84(5), 219-223, 2011.
- Roselin, Jose. Examination Malpractice and Integrity of Educational Credentials, Canada: Unpublished lectures on Certificate Education, 4th Edition, 2012.
- Sanga, Isaac. "Education for Self-Reliance: Nyerere's Policy Recommendations in the Context of Tanzania." *African Research Journal of Education and Social Sciences*, Vol.3, No.2, pp.1-7, 2016.
- Sternberg, Robert & Lubart, Todd. "The Concept of Creativity: Prospects and Paradigms." Sternberg, Robert (Ed.), *Handbook of Creativity*. Cambridge University Press, 1999.
- Whitehead, Alfred. *Process and Reality*. New York: MacMillian and Company, 1930.