

**PARADIGM SHIFT IN UNIVERSITY EDUCATION:  
THE ALETHIA UNIVERSITY AGO-IWOYE PERSPECTIVE**

BEING THE LECTURER DELIVERED AT THE

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ALETHEIA UNIVERSITY AGO-IWOYE

BY

**PROFESSOR OLUWATOYIN TEMITAYO OGUNDIPE, FNSB, FLS, FAS**  
IMMEDIATE PAST VICE CHANCELLOR (2017-2022)  
UNIVERSITY OF LAGOS  
AKOKA

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## **Introduction**

### **A Paradigm Shift for Higher Education**

We are witnessing fundamental and dramatic changes across different areas of our lives. In fact, since the beginning of the 20th century, the rate of change has accelerated in various fields with the term "acceleration of history" more commonly used to describe this phenomenon. This acceleration continues its course today and will intensify as we move deeper into the 21st century. Today, we are living in a world that is constantly transforming. Our ability to adapt and grow is now invaluable, and the idea of a systemic "paradigm shift" across multiple areas has profound implications not only for our personal and professional lives but also for the area I have devoted my entire professional career to: university education.

We are shifting the lens through which we view the world and the new inventions and capabilities being brought to life. For university education, it can lead to a more authentic, fulfilling experience, and greater success for students and learners everywhere. On a personal level, we can take advantage in more meaningful ways of life which has to offer to our day-to-day jobs.

We are continuing to engage discussions about the value of a college degree, credentialing, admissions, university costs, student learning outcomes and success, attainment, paths to employment, and policy issues that still remain unresolved. Just as the leap from Newtonian physics to quantum mechanics revolutionized our understanding of the universe, we should encourage a redefinition of our beliefs and perspectives on higher education. By adjusting and changing perspectives, we should transition from old paradigms to new ones, encouraging groundbreaking viewpoints like moving from a 20th century exclusionary approach to higher education to a truly 21st century inclusionary model where the "getting in, getting through and getting out" framework of linear educational institution can efficiently

be substituted, reconsidered, and adapted to provide individual and professional success for all learners globally.

Inspiring innovation is one of the tools to embrace novel methods and techniques that can revolutionize our approach to university education. Letting go of outdated beliefs and allowing ourselves to embrace new ideas and paths is a must as we begin to close the door on the first quarter of the 21st century. Many colleges and universities are already opening their doors to some of these changes, fostering creativity and discovery to unleash a wave of innovation and progress.

One critical aspect of our global knowledge society can be seen in the role of Artificial General Intelligence (AGI) in decision-making and its permeation throughout higher education. The type of AGI that possesses the ability to understand, learn, and apply its intelligence broadly, much like a human being, is being seen more widely applied today.

Higher education is also facing this great disruptor. As universities struggle to remain relevant and prove their worth to learners across the globe, there is no clear agreement on how to respond to the AGI moment or how to embrace this new paradigm.

These rapid breakthroughs and unexpected developments that we are all witnessing across society today speak to the advancements we see in AGI. The real challenge with AGI is not about it replacing human decision-makers, but rather, increasing our dependence on it for critical guidance. There is a general concern across different areas, not just in higher education, about the risks to become too reliant on AGI's suggestions and recommendations. Understandably, there is a need for humanity to harness AGI's power responsibly, ensuring human oversight with ethical considerations to remain at the forefront.

AGI and the companies leading its use in different industries and market segments are providing humanity with new, innovative, and exponential technology. In those different industries, higher education is still a very small piece of a much larger puzzle, but an important one if we agree on

the key societal role of education. Aristotle recognized that the aim of education was to train people in the moral virtues that, alone, could lead to human flourishing. He explained the importance of living according to prudence, courage, moderation, and justice. Forming a human's *ethos* was part of the education Aristotle envisioned. Centuries later, Albert Einstein reminded us that education was not the learning of facts, but the training of the mind to think. As we see the enormous progress AGI is making in the context of education, we should commit to using AGI not just as a tool for decision-making, but as a partner in our quest for thoughtful, informed choices during this higher education paradigm shift.

Think of Google's new AI model called Gemini, which is said to rival GPT-4. Watch Meta enhancing its AI capabilities with new features, including an AI image generator. Even McDonald's has a new AI chatbot named "Ask Pickles," which is anticipated to make ordering more interesting. Consider Alibaba's video AI that is scraping TikTok data for creativity. Or think of how AI is contributing to decoding a new whale language. Nvidia is ensuring compliance with U.S. export controls to China regarding new chips. Or think of DeepMind being involved in predicting the structure of over 2 million new materials.

The change we've continued to see take place in college admissions is also worth noting. More and more companies are devising ways to leverage AGI to serve as an extension of admissions teams in attracting and admitting students in new and different ways. Selective universities are becoming even more selective while closures and mergers have taken place in the past decade as we prepare to witness an enrollment cliff in 2025 caused by lower birth rates due to impacts from the economic downturn. With fewer students applying to colleges and universities, higher education institutions will have to employ even more sophisticated enrollment management strategies and data analytics to fill the seats.

AGI is already helping in this area, as well as in strengthening student retention and helping students graduate. AGI can also support a true

personalization of teaching and learning based on unique, personal, adaptive learning patterns, and deep learning approaches guiding individuals based on their unique skills, needs and preferences. With emerging market realities, teaching and learning can be then adapted to industry needs with unparalleled changes to the university curriculum.

The need to integrate AGI into higher education and the teaching and learning ecosystem is inevitable, and we should embrace its use in a humanistic and ethical way to help us all move forward in the shifting paradigm we are each witnessing today.

### **What is Paradigm Shift?**

Paradigm shift is defined as an important change that happens when the usual way of thinking about or doing something is replaced by a new and different way.

“The term “paradigm shift” represents the notion of a major change in a certain thought pattern—a radical change in personal beliefs, complex systems or organizations, replacing the former way of thinking or organizing with a radically different way of thinking or organizing”. And nowhere is this change more radical than replacing the way the educational scheme thinks about and organises learning for the industrial age to the information age.

Of course, replacing an old paradigm with a radically different way of thinking or organising is not a straightforward process. Sufficient, significant anomalies within the dominant paradigm need to be accrued before a state of crisis emerges. In order to address this crisis, new theories and experiments are produced to try and explain anomalies. When a new paradigm is formed, the old one slowly dies off as the new one gains influence with new followers through both objective and

subjective criteria. Eventually, the new paradigm is institutionalised as the dominant one.

The educational system today finds itself in the crisis phase of the paradigm shift from teaching students for the industrial age to helping students learn for the information age. The current paradigm embraces forced repetition, memory tests, tolerance for long hours of tediousness, following directions, punctuality and the 3 R's. However, cracks are increasingly materialising in the efficacy of this dominant paradigm for the information age. In its place, a new paradigm is emerging that stresses learner autonomy, innovation, continuous learning and teaching and quality, rather than quantity of thinking. It will take time for this new paradigm to become institutionalised as many stakeholders in the existing educational system will want to retain the status quo but as new theories are proposed, more experiments carried out and incontrovertible evidence emerges for the efficacy of the new paradigm, the paradigm shift will be complete and the new paradigm will be dominant.

A directly relevant example of the paradigm shift currently underway in education previously occurred in psychology as the dominant paradigm shifted from a behaviourist approach to a cognitive one. In the behaviourist approach, the teacher is in control by creating a *dependent* relationship using positive and negative reinforcement techniques to shape learner behaviour. There is no opportunity for the learner to reflect or evaluate. In contrast, under the cognitive approach, the learner is in control and develops their *independence* and autonomy and the teacher's role is to boost learning and shape learner behaviour by applying four key techniques:

1. **Retrieval practice:** Using reflection to pull information out of student's heads rather than lecturing to cram information into them which solidifies and expands their learning.

2. **Feedback:** Supporting learners to monitor their own learning progress by revealing what they know and what they don't know which facilitates learner growth and autonomy.
3. **Spaced practice:** Spreading lessons and knowledge retrieval opportunities over time rather than scheduled sessions which consolidates and refreshes students' knowledge.
4. **Interleaving:** Encouraging connections between and discriminating among closely related topics which leads to greater retention and learning over time.

The paradigm shift to cognitive psychology parallels the paradigm shift needed in education. We need to move from: Teacher-Centred to Student-Centred; Dependent to Independent. Control to Autonomy. Reinforcement to Reflection. Industrial to Information. Making the paradigm shift will take time but it will happen.

## **The Traditional Method of Teaching and Education**

**Traditional methods of teaching** are a thing of the past in which teachers are the controller of the class where they teach and take complete responsibility for the learning environment. All the duties and powers are vested in the teacher and they, being the lecturer in the class, play the role of an instructor for the students and also the decision maker for taking the decision of what to teach and how to teach.

The teachers and students come to school to gain the knowledge and information, they gain from teachers. Teachers are the main source of knowledge to teach students and impart knowledge. However, for time being the methods of teaching have been changed but the main objective remains the same i.e, teaching.

Learning is the aim of teaching, as much as a student learns, a teacher gets success in their work. The process of teaching takes place chiefly in the classroom, which is one of the **traditional methods of teaching**. In the classroom, a full-strength of students sit together and learn the content delivered by teachers and they master knowledge through practice. Traditional methods of teaching are still followed in the schools:

- In traditional teaching methods, classrooms are teacher-centric.
- Teachers are the main source of knowledge in the traditional method of teaching
- They take the responsibility of knowledge dispensers, not the facilitators.
- In traditional teaching methods, chalk and talk methods are highly used.
- Regimented classrooms are the focus of the traditional method of teaching.
- As the traditional method of teaching is teacher-centric, it shows a lack of collaboration and group learning among students. Teachers give lectures and students learn.
- In traditional teaching, the main motive of teachers is to prepare students for exams than teach them and make them understand the concept and syllabus. Students learn just to pass the exam and get good results.
- There is no proper alignment that can be seen between objectives, activities and assessments in traditional teaching.



These are the traits of traditional teaching methods which do not seem suitable during the era of technology. As we are in the 21st century, demands changes in the traditional education and old education system to cope with the modern time. Teachers are now trying to apply the best method of teaching for students to make them meet their needs of students in a meaningful way.

Today, the scenario of the classroom has been changing, students are no longer being treated as the target audience, instead, they take active participation in the classroom and learning. Teachers allow them to speak and ask questions about what they teach. Over the years, teaching styles and methods have been changing. The traditional way of educating in which memorisation and recitation methods are used has been replaced by interactive methods.

### **How is the Modern Teaching Method Different from Traditional Teaching Methods?**

The education system has been transforming and is introducing new methods of teaching which have a completely different angle and approach towards learning and teaching.

In modern teaching methods, teachers teach every student on a different level and do not consider everyone one. They assume all students are different and apply different educational practices to them individually. They consider the needs of every student and deliver accordingly. Unlike old education, progressive teaching methods are based on activity, questioning, explaining, demonstrating and using collaboration techniques.

Spaced learning modern teaching methods is one such method which enables students to switch quickly from learning to activities. For instance, if a teacher is teaching through PowerPoint presentations for 10 minutes to students in the classroom then they have a sport time for at

least 10 minutes. The technique helps in getting better grades and it actually works for students as it makes students' minds active. Spaced learning is more effective than **traditional methods of** teaching. Activity helps the brain cells to make connections which makes students remember better.

The traditional methods of teaching 'chalk and talk' have been in practice for hundreds of years but now it is not suiting the modern practice. Today, students need revolutionary and modern teaching methods in schools.

In the traditional method of teaching, teachers followed the **drill and rote method of memorization**. In this method, children learn through repetition and memorization. There is little or no scope for critical thinking. The traditional approach to education, centered on books and lectures, which no longer suffices in preparing students for the challenges of the 21st century.

Embracing real-world experiences, new technologies, constructive debates, problem-solving, and fear management equips learners with the skills and mindset they need to thrive in an interconnected and dynamic world. By recognizing the importance of this transformation, educators can lay the foundation for a generation of lifelong learners who are eager to explore, innovate, and contribute meaningfully to society. As we adapt our educational methodologies to align with the changing times, we empower students to embrace the future with confidence and enthusiasm. **What do you think?**

Hence, a paradigm of education refers to a way of thinking about the purpose of education, the meaning of learning, and the roles of teachers and students. Paradigms of education influence how students are taught and assessed and what is valued and included in the curriculum. It refers to fundamental changes in the way we view and carry out the learning

process. The various changes that happen in the traditional way of the teaching- learning process. It is a fundamental change in the way education is designed, conceptualized, experienced and delivered.

Paradigm shift in education refers to a fundamental change in the pattern of knowledge. This change in paradigm is also called **constructivist paradigm**.

### **Example of paradigm shift:**

Schools have been using the same curriculum for the past few centuries, it is called paradigm. Any improvement or change in this paradigm is called paradigm shift.

- *Paradigm shift happens when new discovery or idea takes place.*
- *It happens when the needs of society change over time.*

The word paradigm has been derived from the greek word ‘**paradeigma**’ which means a pattern of beliefs or knowledge or assumptions. If any changes take place in this paradigm then we called it a **paradigm shift**.

Therefore a **new paradigm is needed to make the process of teaching and learning more effective** and to strengthen our education system.

In today’s occasion, I am going to discuss with you: The Paradigm Shift in University Education: The Aletheia University Ago-Iwoye Perspective.

### **A Paradigm Shift in the Learning Process**

Teaching and learning is a dynamic process that demands constant invention of methods of teaching to facilitate easy learning. How best the learners could imbibe the lessons has intrigued every generation of

teachers. The quest for ideal methodology has led teachers to relentlessly innovate with methods and do experiments in the classrooms.

In contemporary times, technology has brought in a great transformation in the method of teaching. Adoption of new technology in pedagogy has led to a paradigm shift in teaching and learning process. Technology-aided teaching and learning has mainstreamed new concepts, such as Hybrid Learning which refers to a mode of learning that includes both in-person and remote learning simultaneously.

As a method, the conventional classroom teaching is moderately losing its appeal with the advent of Intercrossed Learning, and resort to technology-aided methods, such as video lessons, online assignment, app-based learning, and online classes through Zoom or Google Meet, and use of digital platforms, is gaining traction among the learners. In terms of course delivery, Hybrid Learning is having a deep impact on the education sector with an increasingly large number of institutions turning to such methods instead of remaining clung to the traditional classroom delivery.

Intercrossed Learning has become topical in recent years especially because of the COVID-induced lockdown of educational premises. This has, indeed, dented the predominance of in-person learning which has been the norm for centuries. Remote learning along with conventional classroom learning is becoming the new norm.

Not so long ago many of us were unfamiliar with online learning, or the more preferred 'remote learning'. Who would have imagined attending a class sitting at home or going through the lessons as per one's own convenience? Modern technology has enabled Crossbred Learning whereby the learners could choose to attend the classrooms remotely. Crossbred Learning, therefore, has affected a great transformation in pedagogy.

## Advantages of Crossbred Learning

Crossbred Learning, like other big changes that take place in human society, has its share of resistance. Nonetheless it is steadily catching up with the masses. Crossbred Learning has some advantages which are worth noting:

- **Learning with technology:** Crossbred Learning promotes technology-enabled learning which removes physical barriers and supports different types of learners. It removes the inhibition of students who are shy and mostly reticent in classroom settings.
- **Flexibility:** Flexibility is one of the major benefits of Crossbred Learning. It literally enables students to learn from anywhere. It enables students to attend classes remotely even if they are sick. If they miss the lessons they can catch up with it later.
- **Optimum use of resources:** Through Crossbred Learning, resources can be optimised. Since it combines different methods of teaching and sources of information, the students can easily identify what works best for them. They can save time and energy by focusing on their distinct learning styles.
- **Effective learning:** Crossbred Learning promotes effective learning. It enables students to remain in their personal best and makes them not feel intimidated by the presence of people around. It removes the classroom-induced psychological barrier to learning. It also helps in overcoming the fear of speaking in public.
- **Greater accessibility:** Accessibility is one of the strongest virtues of Crossbred Learning. Students do not have to travel to schools each day to be present in the classroom. Hybrid Learning has enabled education more accessible with online learning platforms; students enjoy the advantage of choosing to attend the best of educational institutes across the world.

Crossbred Learning, undoubtedly, brings many advantages in facilitating enhanced learning and acquisition of knowledge. Nevertheless it has its own drawbacks which may adversely affect the learners. One of the major demerits of remote learning is the lack of participation. Students who continue to learn remotely remain deprived of the benefits of peer interaction. They prefer seclusion and develop fear of public speaking. Such students may suffer from low self-esteem and lack confidence.

Time management is another problem that remote learning engenders. Those who learn remotely may inadvertently develop procrastination because of learning in a flexible environment which gives primacy to self-paced learning rather than prioritising timely accomplishment of tasks.

Crossbred Learning nonetheless is still in its infancy. It may not completely remove in-person learning but surely will continue to evolve in the future even if it has some demerits of its own. It is particularly advantageous when in-person learning will be constrained by some uncontrollable factors. It also offers the chance to attend institutions of repute across the globe where attending in-person is not feasible for everyone. Hybrid Learning, certainly, has brought in a paradigm shift in the learning process across the globe!

### **Embracing the Paradigm Shift in University Education: Into Real-World Education and Technology. The Aletheia University Ago-Iwoye Perspective**

The landscape of education has undergone a profound transformation in recent years. Today, students are exposed to a world driven by technology, innovation, and real-world application. This shift demands a fundamental change in how we approach education and highlights the importance of integrating practical experience, new technologies, constructive debates, problem-solving, and fear management into every

course and subject. This transformation is essential to empower students with the skills and mindset needed to thrive in the ever-changing world.

## **Epoch Beyond Books**

Education is no longer confined to the four walls of a classroom and textbooks. The rapid advancements in technology provides students with an unparalleled opportunity to access a vast pool of information and connect with experts from various fields. Embracing real-world education allows learners to apply theoretical concepts to practical situations, fostering a deeper understanding of the subject matter. Internships, field trips, and project-based learning are powerful tools that bridge the gap between theory and application, preparing students to tackle real challenges.

Harnessing the Power of New Technologies, in the digital age, technology has become an indispensable aspect of modern education. Integrating cutting-edge tools, such as virtual reality, simulations, and artificial intelligence, enhances the learning experience, making it more engaging and interactive. New technologies not only present information in innovative ways but also equip students with skills vital for their future careers. Proficiency in using technology has become a prerequisite for success in almost every industry, making it imperative for Aletheia University to leverage on these tools effectively.

Constructive Debates and Fostering Critical Thinking, education should not be limited to passive consumption of information but should actively encourage critical thinking and analytical skills. Constructive debates in the classroom foster a culture of open dialogue, where students can challenge ideas, articulate their opinions, and develop a deeper understanding of complex issues. This approach broadens their

perspectives and teaches them the art of respectful disagreement, a skill vital in diverse and multicultural societies.

Ladies and gentlemen, Aletheia University, tackling Real-World Problems Problem-based learning is an effective method of education that centers on solving real-world problems. By confronting concrete issues within their fields of study, students learn to think creatively, collaborate, and develop practical solutions. This approach instills a sense of purpose in their education, showing them how their learning directly impacts the world around them.

Managing Fear and Embracing the Unknown, getting comfortable, with the uncomfortable, in the face of rapid change and uncertainty, fear of the unknown can be a significant barrier to learning and personal growth. It is essential for university to create a safe and supportive environment where students feel encouraged to take risks, experiment, and learn from failure. Developing resilience and adaptability is crucial for students to navigate an ever-changing world successfully.

The traditional approach to education, centered around books and lectures, no longer suffices in preparing students for the challenges of the 21st century. Embracing real-world experiences, new technologies, constructive debates, problem-solving, and fear management equips learners with the skills and mindset they need to thrive in an interconnected and dynamic world. By recognizing the importance of this transformation, the university can lay the foundation for a generation of lifelong learners who are eager to explore, innovate, and contribute meaningfully to society. As we adapt our educational methodologies to align with the changing times, we empower students to embrace the future with confidence and enthusiasm. Hence,



## **The Importance of Paradigm Shift in the 21st Century Education**

Paradigm shift is considered as modern education model. It changes our thinking pattern from one form to another. It has significant impact on our education system. Such as:

### **1. Prepare Students for the Future:**

Change in paradigm helps in preparing the students for the future. With the **advancement of new technologies**, education has changed and continues to change rapidly in this modern world.

Thus it helps students to focus more on the process of learning rather than the product of the teaching-learning process.

### **2. Make Students Creative**

Paradigm shift is the constant evolution of how we learn. When changes occur, students approach the problem differently. Thus modern education model helps to develop **creative skills** in students by enhancing their critical thinking.

### **3. Collaborative Learning Environment**

It helps to provide collaborative learning environment to students. In collaborative learning, various skills are develop in students such as **problem solving skills, leadership skills, cooperative skills, leadership skills, motivational skills, etc.**

### **4. Student-Centered Approach**

Paradigm shift in education makes the process of learning **student-centered rather than teacher-centered**. Now students are active

participants in the teaching-learning process. The curriculum is prepared according to the age level and interests of students.

## **5. Based on Psychological Principles**

New changes in education are based on psychological principles. It focuses more on **learning by doing and discovery learning**.

The main emphasis is on the overall development of children: physical development, cognitive development, Emotional development, and social development.

## **6. Helps in Achieving Educational Goals**

Paradigm Shift helps in achieving the goals of education. A new paradigm in education provides **equal educational opportunities** to all the learners despite having diversity among them.

## **7. Teacher as Facilitator**

A paradigm shift has led to a re-evaluation of the role of teachers. Now, **teachers are seen as facilitator**. Teachers as a facilitator provide support to students according to their needs. They as a facilitator motivate learners.

## **8. Helpful in Assessment and Evaluation**

With new paradigm, it is easy to assess and evaluate the performance of students inside or outside the classroom. Various **tools and techniques** have been developed to assess the strengths and weaknesses of students. Hence, the need for Paradigm Shift in Aletheia University Ago-Iwoye.

## **What is the Best Example of Paradigm Shift in Aletheia University Ago-Iwoye?**

The concept of learner autonomy fits with the overall paradigm shift because it emphasizes the role of the learner rather than the role of the teacher. It focuses on the process rather than the product and encourages students to develop their own purposes for learning and to see learning as a lifelong process.

One of the most important transformations in the world today is the adaptation to education and teaching methods that must be made to enhance the learning experience for Millennial and Generation Z students. The system in which the student is passive and the teacher is active is no longer the most effective form of education. Additionally, with the increased availability to information, knowledge transfer is no longer done solely by the teacher. Educators need to become moderators in order to promote effective teaching practices.

Paradigm Shifts in 21st Century Teaching and Learning examines new approaches to learning and their application in the teaching-learning process. Featuring a wide range of areas such as game-based learning, curriculum design, and sustainability, which is ideal for teachers and students in:

- Adaptive Learning
- Classroom Management
- Curriculum Design
- Educational Technology
- Flipped Learning
- Game-Based Learning
- Language Learning
- Professional Development

- STEM Education
- Sustainability

## **What are the Five (5) Paradigm Shifts to Revolutionize Lifelong Learning for Aletheia University Ago-Iwoye?**

The five **paradigm shifts** required to transform lifelong learning in the future and the way in which learners will acquire and strengthen the skills they need for the labor market.

### **1. Rethink Academic Tracks**

A great deal of global education is structured around **academic and vocational tracks** that are limited and need to be widened and turned into broad avenues of learning.

We should change these limited tracks to multiple modular tracks to be able to serve different students from different backgrounds.

### **2. Encourage Lifelong Learning**

The current educational model has to evolve to promote lifelong learning.

In our current educational system, **we invest a lot in the first 4 to 16 years of schooling**; thereafter, the investment varies greatly from country to country.

We need to reflect a little on how **to change our educational model** to one more focused on lifelong learning. Lifelong learning could and should become a public good.”.

### **3. Transfer Classroom Learning into the Real World**

Predominantly classroom-based learning should be replaced by a **combined leaning** approach through which students can get to know the labor market.

If we want to develop **labor-relevant skills**, we should bring the workplace into the classroom. This could be done with challenge-based, cooperative education programs.

#### **4. Greater Emphasis on Cross-Cutting Adaptive Skills**

Another urgent paradigm shift is to take the emphasis that is currently on technical skills and place it on **cross-cutting adaptive skills**.

As our world becomes increasingly complex, people need to find ways of coming to terms with change, innovating, and thinking critically. They will have to **find solutions to problems** that are inconceivable today.

Skills and technical knowledge quickly become **obsolete**. Our courses should include a set of skills that help people adapt.

#### **5. Greater Collaboration between Public and Private Sectors**

We should underscored the relevance of moving on from education provided by the **public sector** to education involving a **partnership** with the **private sector** so as to offer everyone a learning opportunity.

It's difficult for the government to demonstrate that the whole system is too costly; it is also too slow because **it cannot respond quickly enough** to meet the needs of people and companies.

The private sector must become much more involved when we are contemplating an educational and **lifelong learning system**. We need to come up with ways of making the private sector a very important part of this system.

## **Thus, Sharing the Vision of Global Leaders on Lifelong Learning**

We should cite the ideas of several leaders and thinkers who recognize the need to provide opportunities for **lifelong learning** so that the population is able to cope with different kinds of challenges in labor markets.

Lifelong learning may be understood as a type of **education aimed at self-learning** and based on **personal development** that recognizes this **need to continue learning over the long term** through a variety of approaches.

There are a number of areas we could focus on when think about **transforming higher education**:

I quote **Tharman Shanmugaratnam**, a government minister in Singapore who said at the Global Lifelong Learning Summit 2022 that we need ways of providing optimal, relevant, and high-quality learning opportunities for the work force.

Also **El Iza Mohamedou**, the leader of the OECD Centre for Skills, emphasized the acquisition of skills that may be used both in everyday life and at work, and coordinating all parties involved in the labor market.

Moreover, I recalled that **Michael Crow**, the president of Arizona State University, had called for a new generation of universities that make an impact on a social level and promote the transformation of the future of work through innovation.

I further agreed with **Sanjay Sarma**, a professor at Massachusetts Institute of Technology and author of a book proposing new affordable academic institutions, redesigning syllabuses, and visualizing a university degree as a set of micro-credentials.

In the area of in-service training in a diverse, increasingly automated work environment, I cite **Michelle Weise**, who proposes that

universities should offer a “buffet” of learning opportunities focusing on specific skills.

We should reflect on the need for rapid adaptation and response both from people and organizations to deal with ever increasing obsolescence.

**Gary Bolles** also reflected on the subject of more flexible, innovative learning systems.

### ***Paradigm Shift: Understanding and Implementing Change in Education***

Change seems to be a constant in education. We can better understand and implement change in education if we look for connections between changes. The concept of paradigm shift offers one means of making such connections. There are eight changes that fit with the paradigm shift in education. These eight I selected because of the potential impact they could have if they are used in a more integrated fashion.

#### **Eight Changes as Part of the Paradigm Shift in Education**

- Learner Autonomy
- Cooperative Learning
- Curricular Integration
- Focus on Meaning
- Diversity
- Thinking Skills
- Alternative Assessment

- Teachers as Co-learners.

When a paradigm shift takes place, we see things from a different perspective as we focus on different aspects of the phenomena in our lives. Twentieth century paradigm shifts across a wide variety of fields can be seen as part of a larger shift from positivism to post-positivism. Awareness of this broader shift helps make clearer the shifts that take place in any one particular field. Table 1 provides a brief look at some contrasts between positivism and post-positivism.

**Table 1 -- Contrasts between positivism and post-positivism**

<b>Positivism</b>	<b>Post-Positivism</b>
Emphasis on parts and decontextualization	Emphasis on whole and contextualization
Emphasis on separation	Emphasis on integration
Emphasis on the general	Emphasis on the specific
Consideration only of objective and the quantifiable	Consideration also of subjective and the non-quantifiable
Reliance on experts and outsider knowledge--researcher as external	Consideration also of the "average" participant and insider knowledge--researcher as internal
Focus on control	Focus on understanding
Top-down	Bottom-up
Attempt to standardize	Appreciation of diversity
Focus on the product	Focus on the process as well

The principal paradigm shift over the past 40 years flowed from the positivism to post-positivism shift and involved a move away from the tenets of behaviorist psychology and structural linguistics and toward

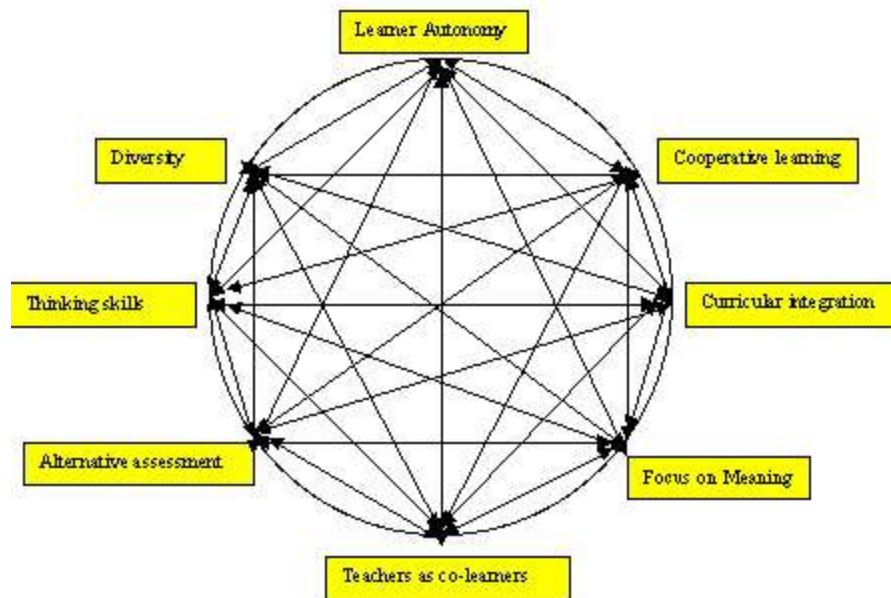


cognitive, and later, socio-cognitive psychology and more contextualized, meaning. Key components on this shift concerned:

1. Focusing greater attention on the role of learners rather than the external stimuli learners are receiving from their environment. Thus, the center of attention shifted from the teacher to the student. This shift is generally known as the move from teacher-centered instruction to learner-centered or learning-centered instruction.
2. Focusing greater attention on the learning process rather than on the products that learners produce. This shift is known as a move from product-oriented instruction to process-oriented instruction.
3. Focusing greater attention on the social nature of learning rather than on students as separate, decontextualized individuals.
4. Focusing greater attention on diversity among learners and viewing these differences not as impediments to learning but as resources to be recognized, catered to and appreciated. This shift is known as the study of individual differences.
5. Focusing greater attention on the views of those internal to the classroom rather than solely valuing the views of those who come from outside to study classrooms, evaluate what goes on there and engage in theorizing about it. This shift led to such innovations as qualitative research - with its valuing of the subjective and affective, of the participants' insider views and of the uniqueness of each context.
6. Along with this emphasis on context came the idea of connecting the school with the world beyond as a means of promoting holistic learning.
7. Helping students to understand the purpose of learning and develop their own purposes.
8. A whole-to-part orientation instead of a part-to-whole approach. This involves such approaches as beginning with meaningful whole texts and then helping students understand the various features that enable texts to function, e.g., the choice of words and the text's organizational structure.

9. An emphasis on the importance of meaning rather than drills and other forms of rote learning.
10. A view of learning as a lifelong process rather than something done to prepare for an exam.

Figure 1 provides an illustration of the interdependence of these eight changes of the paradigm shift in education. The circular nature of the figure emphasizes that all the changes are parts of a whole and that the successful implementation of one is dependent on the successful implementation of others.



**Figure 1. Eight Changes in Paradigm Shift in Education**

### **Learner Autonomy**

**What it is Learner Autonomy?** To be autonomous, learners need to be able to have some choice as to the what and how of the curriculum and, at the same time, they should feel responsible for their own learning and for the learning of those with whom they interact. Learner autonomy involves learners being aware of their own ways of learning, so as to utilize their strengths and work on their weaknesses. Intrinsic motivation plays a central role in learner autonomy. The teacher no longer shoulders

the entire burden of running the classroom. A form of democratization takes place with students taking on more rights and responsibilities for their own learning.

Learner autonomy is sometimes misunderstood as referring only to learners being able to work alone. By collaborating with their peers, learners move away from dependence on the teacher. Group activities help students harness that power and by doing so they build their pool of learning resources because they can receive assistance from peers, not just from the teacher. Self-assessment provides another way for students to develop their autonomy.

With self-assessment, no longer do students have to wait for the teacher to tell them how well they are doing and what they need to do next. Yes, the teacher remains generally the more knowledgeable and experienced person in the classroom, but the goal is for students to move towards and perhaps even beyond, the teacher's level of competence. Placing value on learners' knowledge helps them feel more capable of playing a larger role in their own learning.

The concept of learner autonomy fits with the overall paradigm shift because it emphasizes the role of the learner rather than the role of the teacher. It focuses on the process rather than the product and encourages students to develop their own purposes for learning and to see learning as a lifelong process.

## **Cooperative Learning**

**What is Cooperative learning** also known as **collaborative learning**? It consists of a range of concepts and techniques for enhancing the value of student-student interaction. In other words, rather than teachers just asking students to work together and hoping all goes well, cooperative learning offers teachers ideas for helping group activities succeed.

Cooperative learning relates to several aspects of the paradigm shift. As with learner autonomy, the use of group activities places students at the

center of attention, offering them one means of taking on more rights and responsibilities in their own learning. Process is also emphasized, as students do not just show each other their answers; they explain to one another how they arrived at the answers. Additionally, cooperative learning acknowledges the place of affect in education, highlighting the importance of positive interdependence, the feeling among group members that the group sinks or swims together . Positive interdependence helps students feel support and belonging at the same time that they are motivated to try hard to assist the group in reaching its goals.

## **Curricular Integration**

**What is Curricular integration?** This serves to overcome the phenomenon in which students study one subject in one period, close their textbook and go to another class, open another textbook and study another subject. When various subject areas are taught jointly, learners have more opportunities to see the links between subject areas. By appreciating these links, students develop a stronger grasp of subject matter, a deeper purpose for learning and a greater ability to analyze situations in a holistic manner.

A key link between curricular integration and the paradigm shift that is the focus of the concept of going from whole to part rather than from part to whole. For instance, under the traditional education model, students study a given historical period, e.g., the 19th century, in an atomistic way. In history class, they study key events, people and movements. In science class, in another year or term they discuss notable scientific discoveries. Little or no effort is made to build learning links. Thus, students miss valuable opportunities for understanding context.

Project work, is yet another method of implementing curricular integration in that projects are often multidisciplinary. For example, an environmental project, e.g., on water pollution, could involve scientific knowledge about how to analyze water samples, mathematics

knowledge to do calculations based on the sample, social studies knowledge about the role of governmental, private and civic sectors in cleaning up water pollution and language knowledge to write letters and prepare presentations based on the project's findings. This is in line with ideas from the area of critical pedagogy, which seeks to encourage a view of learning as a process in which students actively take part in transformation of themselves and their world, not as a process in which students passively take part in transmission of information from their teachers and textbooks to themselves.

### **Focus on Meaning**

Research from cognitive psychology tells us that we learn best when we connect and store information in meaningful chunks. While rote drills and memorization might be of benefit for short-term learning, long-term learning and the extension of that learning require that students focus on the meaning of the language they are using. .

Behaviorist psychology emphasizes that one size fits all for learning. Thus, if one-celled organisms can learn without access to meaning, why shouldn't that also be the best means for learning in humans? In contrast, socio-cognitive psychology stresses that people learn by chunking new information with existing knowledge and that meaning plays a key role in forming those chunks.

### **Diversity**

Diversity has different meanings. One meaning lies in the fact that different students attach different connotations to the same event or information. Another aspect of diversity involves the mix of students we have in our classrooms in terms of backgrounds, e.g., ethnic, religious, social class, language, sex, achievement levels, learning styles, intelligences and learning strategies. Taking advantage of this diversity can be challenging.

A key tenet of learner-centered instruction is that each learner is different and that effective teaching needs to take these differences into account. In contrast, the old paradigm attempted to fit all students into a one-size-fits-all learning environment, with diversity viewed as an obstacle to be removed. In the current paradigm, diversity among students is not seen as an obstacle, but as a strength.

## **Thinking Skills**

Among the strategies that learners need to acquire and use are those that involve going beyond the information given and utilizing and building their higher-order thinking skills, also known as critical and creative thinking skills. Various typologies of these skills exist. One well-known list focuses on the skills of applying information to other contexts, analyzing the features of a given phenomenon, synthesizing information to create something new and evaluating information. Today, thinking skills are seen as an essential part of education, because information is easily obtained, so the essential task is now to use that information wisely.

Connecting education to the wider world in order to improve that world means that students--along with their teachers - need to analyze existing situations, synthesize new ideas and evaluate proposed alternatives. Certainly, a great deal of higher-order thinking is needed here. For example, if students are studying the water pollution problem mentioned above, they will encounter the kind of tangled thicket of variables that make it so difficult to implement solutions to the mess that humans have made of our planet's environment. Indeed, the use of global issues in education, such as environment, peace, human rights and development, represents a venue in which thinking skills very much need to be in attendance.

## **Alternative Assessment**

New assessment instruments are being developed to compliment or replace traditional instruments that use multiple choice, true-false and

fill-in-the-blank items Further, attempts are being made to develop assessment instruments that mirror real-life conditions and involve thinking skills. These alternative assessment instruments are often more time-consuming and costly, as well as less reliable in terms of consistency of scoring. Nevertheless, they are gaining prominence due to dissatisfaction with traditional modes of assessment, which are faulted for not capturing vital information about students' competence.

The new paradigm informs this change in several ways. First, an emphasis on meaning rather than form underlies many of the new assessment instruments. Second, many alternative assessment methods, such as think aloud protocols, seek to investigate process. Third, the understanding of the social nature of learning has led to the inclusion of peer assessment and to the use of group tasks in assessment.

### **Teachers as Co-Learners**

The concept of teachers as co-learners involves teachers learning along with students and doing complex real-world tasks. Because the world is complex and constantly changing, lifelong learning is necessary. Teachers must take part in this never-ending quest and, indeed, model this process for their students. Teachers learn more about their subject areas as they teach, as well as learning about how to teach.

Under the "old" paradigm, teachers are workers who need to be supervised by "experts," usually from the university and relevant government agencies, in order to make sure that goals are being met and students are performing according to prescribed schemes. Teaching is seen as a skill that can be learned in discrete items from lesson planning to how to ask questions. When these skills have been learned, the teacher is qualified to teach. In teacher education this approach is seen as "training". However, the current paradigm sees teaching and learning as social processes where the students are active co-constructors of knowledge with their teachers. The teacher is more of a facilitator and fellow learner alongside the students. Thus,

The paradigm shift seems to be gradual, evolutionary and piecemeal.

## **Conclusion**

Yes, implementing change is difficult.

New ideas need a great deal of work by practicing teachers to translate into their everyday teaching routines.

These innovations fit together, like the pieces in a pattern cut to make a jigsaw puzzle. Each piece supports the others.

As the 21<sup>st</sup> Century Paradigm shift in education envisage embedded curriculum in the following areas:

- Character Development
- Emotional Intelligence
- Employability Skills
- Leadership Skills
- Multiple Intelligences
- Social Skills
- Teamwork Skills
- Thinking Skills
- Diversity Skills

As Einstein suggests, the solution is adopting a new consciousness. The educational community needs a whole new perspective. Aletheia University need a paradigm shift.



## References

Alberto A. (2023). A Paradigm Shift for Higher Education. Retrieved 2<sup>nd</sup> June, 2024 from <https://www.linkedin.com/pulse/paradigm-shift-higher-education-alberto-acereda-fufte>.

Agustin, A. C. (2023). Embracing the Paradigm Shift in Education: Beyond Books and into Real-World Experience and Technology. Retrieved 2<sup>nd</sup> June, 2024 from <https://www.linkedin.com/pulse/embracing-paradigm-shift-education-beyond-books-real-world-cohen>

Albert, E. in Kagan, S. (2004). From Lessons to Structures – A Paradigm Shift for 21st Century Education. Retrieved 2<sup>nd</sup> June, 2024 from [https://www.kaganonline.com/free\\_articles/dr\\_spencer\\_kagan/267/From-Lessons-toStructures-A-Paradigm-Shift-for-21st-Century-Education](https://www.kaganonline.com/free_articles/dr_spencer_kagan/267/From-Lessons-toStructures-A-Paradigm-Shift-for-21st-Century-Education).

Ausubel, D. P. (1968). *Educational psychology: A cognitive view*. New York: Holt, Rinehart, and Winston.

Ayaduray, J., & Jacobs, G. M. (1997). Can learner strategy instruction succeed? The case of higher order questions and elaborated responses. *System*, 25, 561-570.

Bailey, K. M., & Nunan, D. (Eds). (1996). *Voices from the language classroom*. New York: Cambridge University Press.

Bejarano, Y., Levine, T., Olshtain, E., & Steiner, J. (1997). The skilled use of interaction strategies: Creating a framework for improved small-group communicative interaction in the language classroom. *System*, 25, 203-214.

Borkala, L. K. M. (2022). The Importance of Paradigm Shift. Retrieved 2<sup>nd</sup> June, 2024 from <https://collegemarker.com/blogs/the-importance-of-paradigm-shift/>

Breen, M., & Candlin, C. N. (1980). The essentials of a communicative curriculum in language teaching. *Applied Linguistics*, 1(2), 89-112.

Brinton, D. M., Snow, M. A., & Wesche, M. B. (1989). *Content-based second language instruction*. New York: Newbury House.

Brown, H. D. (1994). *Principles of language learning and teaching* (3rd ed.). Upper Saddle River, NJ: Prentice Hall Regents.

Cates, K. (1990). Teaching for a better world: Global issues in language education. *The Language Teacher*, 14, 3-5.

Crandall, J. (Ed.). (1987). *ESL through content-area instruction*. Englewood Cliffs, NJ: Prentice Hall.

Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper & Row.

Digital Class Educational Class, (2022). The Traditional method of teaching & Education. Retrieved 2<sup>nd</sup> June, 2024 from <https://www.digitalclassworld.com/blog/traditional-method-of-teaching/>

[Education Minder](#), (2022). What is the paradigm shift in education? Retrieved 2<sup>nd</sup> June, 2024. From <https://testbook.com/question-answer/what-is-the-best-example-of-paradigm-shift-in-educ--60f92a20ea43698df321828a>.

[Senol, O.](#) (2020). Paradigm Shifts in 21st Century Teaching and Learning. Retrieved 2<sup>nd</sup> June, 2024 from

[https://scholar.google.com/scholar?q=%C5%9Eenol,+O.+\(2020\).+Paradigm+Shifts+in+21st+Century+Teaching+and+Learning&hl=en&as\\_sdt=0&as\\_vis=1&oi=scholar](https://scholar.google.com/scholar?q=%C5%9Eenol,+O.+(2020).+Paradigm+Shifts+in+21st+Century+Teaching+and+Learning&hl=en&as_sdt=0&as_vis=1&oi=scholar).

Fanselow, J., F (1988). "Let's see": Contrasting conversations about teaching. *TESOL Quarterly*, 22, 113-130. [-14-]

Freire, P. (1970). *Pedagogy of the oppressed*. New York: Seabury.

Fullan, M. G., Bennett, B., & Rolheiser-Bennett, C. (1990). Linking classroom and school improvement. *Educational Leadership*, 47(8), 13-19.

Jacobs, G. M., & Farrell, T. (2001). Paradigm shift: Understanding and implementing change in second language education. *TESL-EJ*, 5(1). [http://www.kyoto-su.ac.jp/information/tesl\\_ej/ej17/toc.htm](http://www.kyoto-su.ac.jp/information/tesl_ej/ej17/toc.htm).

Intekhab M. (2022). Hybrid Learning: A Paradigm Shift in the Learning Process. Retrieved 2nd June, 2024 from <https://uniathena.com/hybrid-learning-paradigm-shift-in-learning-process>.

Kagan, S. (2002). The Embedded Curriculum. Retrieved 2<sup>nd</sup> June, 2024. <https://www.google.com/search?client=firefox-b-d&q=Kagan%2C+S.+%282002%29.+The+Embedded+Curriculum>

Ricardo, T. (2023). The 5 paradigm shifts to revolutionize lifelong learning. Retrieved 2<sup>nd</sup> June, 2024 from <https://conecta.tec.mx/en/news/national/education/5-paradigm-shifts-revolutionize-lifelong-learning>

Richard, C. (2020). The Paradigm shift needed in education. Retrieved 2<sup>nd</sup> June, 2024. From <https://switcheducation.com/the-paradigm-shift-needed-in-education/>.

[Nilesh G.](#) (2022). The traditional method of teaching. Retrieved 2<sup>nd</sup> June, 2024. From <https://graphy.com/blog/traditional-method-of-teaching/>