

The Pedagogical Approach to Project Management in Nigeria – Theory and Practice



Presented

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What is Pedagogy?

- Pedagogy is defined simply as the method, and practice, of teaching. It encompasses:
 - Teaching styles
 - Teaching theory
 - Feedback and assessment
- When people talk about the pedagogy of teaching, they will be referring to the way teachers deliver the content of the curriculum to a class.

What are the pedagogical approaches?

- The different pedagogical approaches could be broken down into four categories:
 - 1. Behaviorism
 - 2. Constructivism
 - 3. Social constructivism, and;
 - 4. Liberationist.

Behaviorism

- A behaviorist pedagogy uses the theory of behaviorism to inform its approach. A behaviorist pedagogical approach would say learning is teacher centered. It would advocate the use of direct instruction, and lecture based lessons.

Behaviorism

- The theory of Behaviorism in a classroom setting came from pedagogical research by [Thorndike \(1911\)](#), [Pavlov \(1927\)](#) and [Skinner \(1957\)](#). Behaviorist pedagogy is the theory that the **teacher should be the sole authority figure**, and leads the lesson. Knowledge should be delivered in a curriculum where each subject is taught discretely (as opposed to topic based learning).
- **Behaviorism is also sometimes described as a traditional teaching style.**

Constructivism

- Constructivism is a theory that people learn through experiences and reflection.
- A Constructivist pedagogy puts the learner at the center of the learning, and is sometimes called 'invisible pedagogy'.
- A constructivist approach would incorporate project work, inquiry based learning, and might adopt a Montessori or Steiner method.

Constructivism

- A lesson might include individualization, a slower pace, hidden outcomes, the mantle of the expert, and less teacher talk.
- Some adopters of this pedagogy would also place emphasis on being outdoors, and engaging with nature.
- **Constructivism is also sometimes described as a progressive teaching style.**

Social constructivism

- A Social constructivism pedagogy could be considered to be a blend of two priorities: teacher guided, and student centered.
- This pedagogy believed that learning was a collaborative process between student and teacher.
- The teacher might also use teacher modeling, questioning, and a mixture of individual, pair, and whole class instruction.

Liberationism

- Liberationism is a critical pedagogy developed by the Brazilian educator, [Paulo Freire](#). Freire was the Director of the Department of Education, and developed an approach of teaching where he was able to teach illiterate adults to read in just 45 days.
- Freire focused on removing the two barriers to learning: poverty and hunger.

Liberationism

- A liberationist approach is one where the student voice is placed at the center, and a democracy is put into the classroom.
- Value is placed on having the teacher as a learner, and the class discovering subjects together.
- The teacher should **provide space and opportunity for the students to showcase their learning,** and this can take the form of a performance, speech, or dance.

Which of these methods do we practice in Nigeria?

Project Based Learning (PrBL)

The Problem



How the customer explained it



How the project leader understood it



How the engineer designed it



How the programmer wrote it



How the sales executive described it



How the project was documented



What operations installed



How the customer was billed



How the helpdesk supported it



What the customer really needed

Project Based Learning Introduction

- This pedagogical model organizes learning around projects, in which the project is the main learning mechanism throughout the course, creating increased comprehension
- Simply having a project as part of the curriculum does not mean that a PrBL model is being used.

Characteristics of Project Based Learning

- PrBL projects are central, not peripheral to the curriculum.
- PrBL projects are focused on questions or problems that “drive” students to encounter (and struggle with) the central concepts and principles of a discipline.
- Projects involve students in a constructive investigation.
- Projects are student driven to some extent.
- Projects are realistic, not school like.

Why Project Based Learning (PrBL)

- PrBL helps students develop a broad range of skills, including:
 - Critical thinking
 - Problem solving
 - Working in groups, and:
 - Effective communication

Example of PrBL

- At the University of Colorado, PrBL was also used in a construction management of community building project.
- Both undergraduate and graduate students were involved in the study. The effort adopted the “Knowledge Landscape” approach to the solution of project scenarios with a diverse range of external and internal project variables that required the application of both technical and nontechnical skills.

Example of PrBL contd..

- Assessment methodology primarily consisted of follow up interviews with students who participated in the PrBL courses and their employers.
- Based on the interviews, the study determined that as a consequence of the PrBL experience students were more marketable, had an increased understanding of the subject matter and a deeper understanding of their domain (i.e. construction).

Research Data

Table 1. Pre and post questionnaire questions and results for the treatment courses.

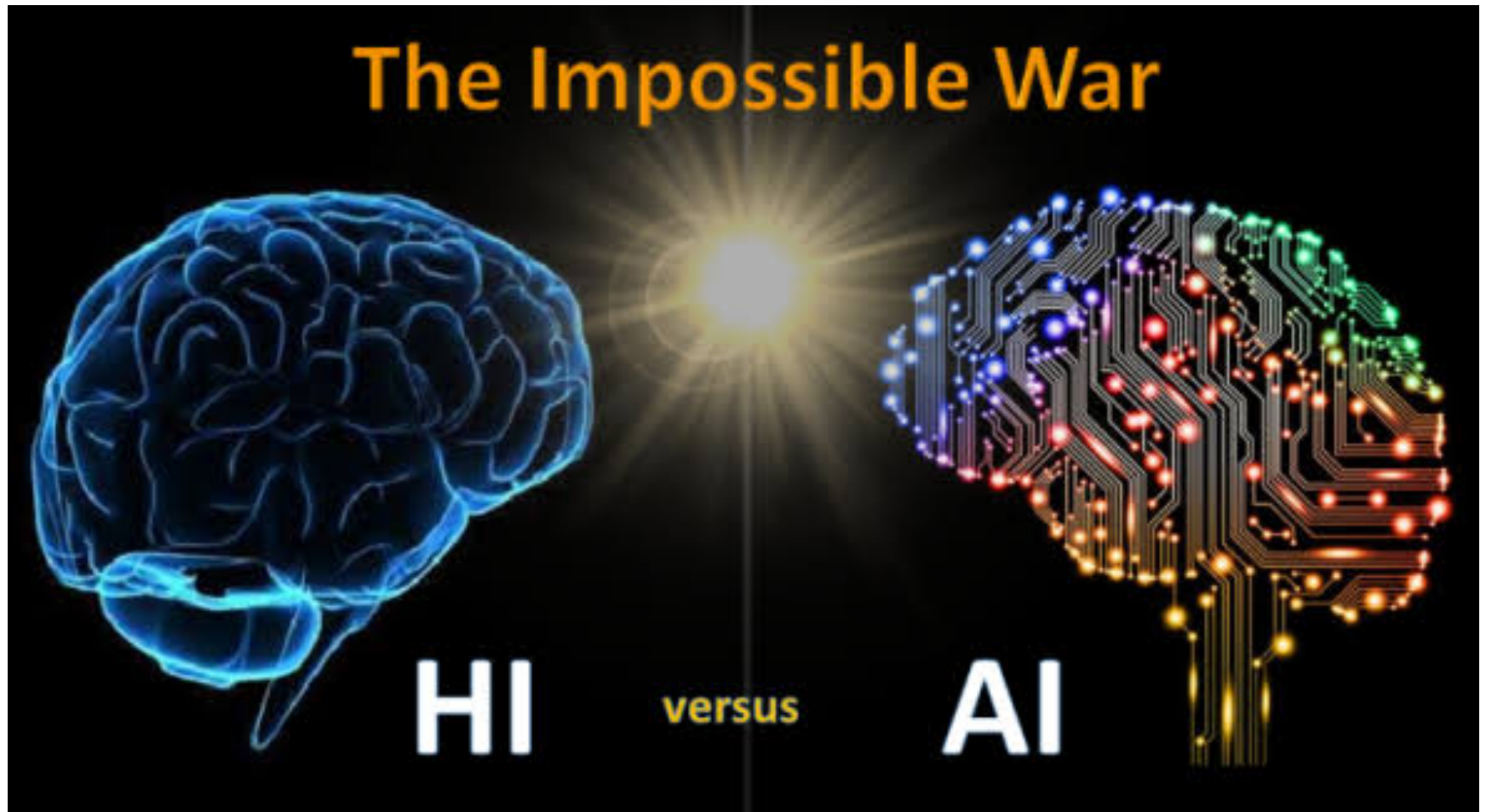
Course Outcomes	Fall 2014 Treatment		Fall 2015 Treatment		Fall 2016 Treatment	
	Pre Analysis	Post Analysis	Pre Analysis	Post Analysis	Pre Analysis	Post Analysis
1. I have an understanding of construction project management.	4.6	6.7	4.4	6.7	4.4	6.6
2. I am able to perform analysis on foundation's soil characteristics.	4.0	6.0	3.9	6.1	4.0	6.2
3. I am able to perform a project risk assessment.	4.6	6.7	4.5	6.6	4.5	6.7
4. I am able to construct a detailed work breakdown structure for construction projects.	4.2	6.6	4.2	6.5	4.3	6.6
5. I am able to construct estimates for proposed construction projects.	4.3	6.6	4.2	6.6	4.1	6.7
6. I am able to construct a project schedule.	4.2	6.4	4.1	6.3	4.1	6.5
7. How satisfied were you with the real world project.	–	6.9	–	7.0	–	7.0
8. How satisfied were you with the milestone delivery format.	–	7.0	–	7.0	–	7.0
9. Please provide any comments you would like to add.	–	–	–	–	–	–

How do we apply Project Based Learning (PrBL) in Nigeria?

Open Discussion

The Future of Project Management

AI and Project Management



AI will replace many jobs

- AI will take over
- Cannot replace humans
- Humans have heart
- Stakeholder management
- We teach how to remember and calculate, computers will do it better than us
- **Can AI Project Manage?**

Project Management – View from the Top

- UK, US, Canada, Europe – PM centered (day rate)
 - Audi
 - Sky
 - BBC
- Nigeria – Project Managers - errand only (in most cases)
 - Bring sanity to the profession
 - Increase earning potential and
 - Create a better and accountable Nigeria

Conclusion

- Project Management in Nigeria will be the center of development
- Project Management in Nigeria will be the role of the future
- Project Management will forever be in existence as long as we continue to create something new
- AI might take over a lot of jobs, but it can never replace the human management – and this is where the Project Manager operates

The End