



# KAIZEN LEVEL 1 AND LEVEL 2 TRAINING

KAIZEN INSTITUTE OF ZAMBIA  
26th June to 30th June 2023



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## 1. Acronyms

|              |   |
|--------------|---|
| <b>8NDP</b>  | 8 <sup>th</sup> National Development Program    |
| <b>CEO:</b>  | Chief Executive Officer                         |
| <b>HEO</b>   | Heavy Equipment Operator                        |
| <b>KiZ:</b>  | Kaizen Institute of Zambia                      |
| <b>KPI:</b>  | Key Performance Indicator                       |
| <b>KVTC:</b> | Kitwe Vocational Training Centre                |
| <b>PDCA:</b> | Plan Do Check Act                               |
| <b>QC:</b>   | Quality Control                                 |
| <b>TPM:</b>  | Total Productive Maintenance                    |
| <b>TVET</b>  | Technical and Vocational Education and Training |

## 2. Introduction

In line with the project staff development program, Kitwe Vocational Training Center (KVTC) trainers and management staff underwent a pedagogical training in Kaizen at Kaizen Institute of Zambia (KiZ) in Lusaka. The main objective of the training was to enhance the technical team and management staff's understanding of quality and productivity improvement. Additionally, this training aimed to equip the participants with knowledge and skills in effective planning, implementation, analysis, and corrective action execution. This would enable the training participants to navigate the educational process efficiently and provide effective training and guidance to students enrolled in the upcoming Heavy Equipment Operator (HEO) training course at KVTC. The pedagogical training program was structured into two levels, namely level I and level.

The training took place from June 26 to June 30, 2023, at the KiZ training center in Lusaka. It was facilitated by three trainers from KiZ: Fred Sichikolo, who held the position of Senior Consultant, Sishekanu Mwaluka, who served as a consultant, and Norah Malambo, who also worked as a consultant.

## 3. Purpose of Training

The objectives for each level are outlined below:

### Level I Training

- ❖ Outline the evolution of Quality and Productivity Management.
- ❖ Knowledge on Kaizen methodology as a tool for quality and productivity improvement, Competitiveness and mindset change.
- ❖ Gain knowledge on the 5 S methodology and visual control effective workplace organization.
- ❖ Acquire knowledge on Quality Control Circle as a platform for continuous improvement implementation.

### Level II Training

- ❖ Productivity Management.
- ❖ Acquire knowledge on the 7 types of wastes and how to eliminate (Minimize) them.
- ❖ Knowledge on the Toyota Production System.
- ❖ Knowledge on Total Productive Maintenance (TPM).
- ❖ Gain knowledge on the Kaizen Consulting framework (the QC Story)-Proposal.
- ❖ Learn the KAIZEN Consulting Process-Proposal, highlighting risks associated with each process stage and how to manage.
- ❖ Knowledge on the steps of a KAIZEN project report writing.
- ❖ Learn on the 7 QC Tools & apply them.
- ❖ Stress management

## 4. Training Participants

| S/No. | Name                | Title                        | Institution |
|-------|---------------------|------------------------------|-------------|
| i.    | Mr. Nephas Moyo     | Project Coordinator          | UNIDO       |
| ii.   | Mr. Chrispin Kakoma | Principal                    | KVTC        |
| iii.  | Mr. Oswald Kabwela  | Trainer                      | KVTC        |
| iv.   | Mr. Bernard Simumba | Trainer                      | KVTC        |
| v.    | Mr. Harry Sianziba  | Trainer                      | KVTC        |
| vi.   | Mr. Freddie Mulenga | Trainer                      | KVTC        |
| vii.  | Mr. Tembo Prince    | Business Development Officer | KVTC        |
| viii. | Mr. Chipso Nkomo    | Project Staff                | KVTC        |

## 5. Introduction to KAIZEN

The training commenced with opening remarks by KiZ Chief Executive Officer (CEO) Ms. Tamala Nakwamba Namakoba. The CEO talked about KiZ limited being established by government as non-profit making organization in 2014 to promote quality and productivity improvements in public and private organisations. KiZ offers both training and consultancy services.

Additionally, the CEO highlighted the connection between KiZ and the 8th National Development Plan (8NDP), specifically strategy 2 of the plan, which focuses on improving Technical and Vocational Education and Training (TVET). She emphasized that the training provided by KiZ would primarily concentrate on enhancing Quality, Cost, Delivery, and Service.



*Ms. Tamala Nakwamba Namakoba welcoming the team KIZ*

During the session, the participants were asked about their expectations for the training, and the following responses were recorded:

- 🚦 To improve on the service delivery for client satisfaction.

- ✚ Improve on the way the lessons have been delivered and how to present lessons and how to interact with student.
- ✚ Tap in the centre to improve in service delivery.
- ✚ Time management, continuous improvement and costing.
- ✚ Linkage between management, lecturers' and students for collection of feedback for industry and students how to streamline processes for collection of feedback from students and industry.
- ✚ How to achieve cost effective and efficient training to offer the best training in Zambia.
- ✚ Engage in an open level discussion.

## 5. Evolution of Quality and Productivity Management

The training commenced with the KiZ consultant Mr. Fred Sichikolo introducing the evolution of quality management. The consultant presented the following stages in the evolution of quality management:

- I. Craftsmen era,
- II. Quality inspection era
- III. Quality control era
- IV. Quality assurance era
- V. Total Quality Management era
- VI. Initiative era.

These different stages have played a crucial role in quality management within institutions. The consultant explained how quality assurance can be achieved and implanted at KVTC, the consultant stressed the need to establish a quality assurance process in training delivery. This involves adhering to the stipulated hours in the curricula, ensuring availability of training materials, collecting feedback from students about trainers, monitoring student attendance, conducting continuous assessments, and maintaining an appropriate lecture-to-student ratio.

Furthermore, the training covered the topic of six sigma, which is a business process aimed at improving quality, reducing costs, and enhancing customer satisfaction. The six-sigma process consists of five stages: define, measure, analyze, improve, and control.

## 6. Kaizen

We then learnt about Kaizen, which is a Japanese word that translates to "continuous improvement." It is a philosophy that encourages ongoing improvements in the process of converting inputs into outputs. Kaizen combines the words "Kai," meaning change, and "Zen," meaning good. The Kaizen philosophy emphasizes individual worker responsibility for the quality of their work.

## 7. 5S Methodology

During the training, the topic of the 5S methodology was covered. This methodology is employed in organizations to enhance efficiency and productivity. It is based on the following fundamental principles:

- I. Sorting (Seiri) = Classification of materials should be by usage
- II. Systematize (Seiton) = Arrangement of materials for easy use
- III. Sweeping, Shining (Seisou) = Clear away any undesirable material
- IV. Standardize (Seiketsu) = Keep the things in desirable cleanliness
- V. Sustain (Shitsuke) = Discipline: Plan, Do, Check, Action

Mr. Chrispin Kakoma, the principal of KVTC, expressed the importance of KiZ visiting the KVTC to implement the 5S methodology. This visit would allow the team to fully grasp the concept of 5S and apply it in practice. Furthermore, it would enable them to later disseminate this knowledge to other trainers and students.

## 8. Quality Control

Quality Control (QC) was also covered during the 5-day training. We learned that quality is the sole factor that sets businesses apart in the market. Quality is the responsibility of every individual within an organization, and management must mobilize the entire workforce to deliver products and services that satisfy clients. This means that quality should be deeply ingrained in the mindset and values of every member of the organization.

To achieve QC, the formation of QC circles was discussed. These circles consist of small groups of frontline employees who continuously monitor and enhance the quality of their work, products, and services. A QC circle typically comprises 3 to 10 people. The fundamental principles of QC are as follows:

- ✚ Fully unleash human capabilities and unlock infinite possibilities.
- ✚ Respect humanity and create a pleasant, dynamic, and fulfilling work environment.
- ✚ Contribute to the improvement and growth of the enterprise.

Executives and managers hold significant roles in QC. They must ensure that QC Circle activities contribute to the overall well-being of the organization. One tool that managers utilize for guiding QC circles is the 5W1H action plan. This action plan involves addressing the following elements:

- ✚ WHAT: What needs to be done?
- ✚ WHY: Why is it necessary?
- ✚ WHERE: Where should the actions take place?
- ✚ WHEN: When should the actions be implemented?
- ✚ WHO: Who will be responsible for carrying out the actions?
- ✚ HOW: How should the actions be executed?

By utilizing this action plan, managers can effectively guide and support QC circle initiatives.



*Class in session during the fundamentals of QC lesson*

## 9. Waste Elimination

We learned that productivity within an organization can be achieved by eliminating waste. Eliminating waste is the most effective approach to increasing revenue in a business. Waste refers to anything that does not contribute value to the customer. It is crucial to eliminate waste at its source.

The concept of Kaizen focuses on the 3MU's:

- I. Muda, which refers to waste.
- II. Muri, which refers to overloading a machine or individual.
- III. Mura, which refers to unevenness in production speed or volume.

These three factors lead to inefficiencies and high costs in any operation. The most efficient way to eliminate waste is by streamlining the entire operational process and identifying non-value-adding activities, then eliminating them completely. There are seven types of waste to be aware of:

- I. Transport
- II. Inventory
- III. Motion
- IV. Waiting
- V. Overproduction
- VI. Overprocessing
- VII. Defects



By identifying and addressing these types of waste, organizations can enhance efficiency, reduce costs, and deliver greater value to customers.

## 10. Total Productive Maintenance

Furthermore, we also covered Total Productive Maintenance (TPM), a method of physical asset management focused on maintaining and improving production machinery, in order to reduce the operating cost to an organization. TPM emphasizes proactive maintenance, such as planned, predictive, and preventive maintenance, over reactive maintenance, which is unscheduled and ineffective. The aim of TPM is to maximize overall equipment effectiveness, improve equipment reliability, and enhance maintainability. TPM encompasses five fundamental activities:

- I. Autonomous maintenance
- II. Equipment improvement
- III. Quality maintenance
- IV. Maintenance Prevention, system-building
- V. Education and training

Under TPM we also covered the 6 big operations which are

- I. Availability loss**
  - Breakdown losses due to failures and repairs
  - Setup and adjustment losses
- II. Performance loss**
  - Idling and minor stoppage losses
  - Speed losses
- III. Quality loss**
  - Scrap and rework losses
  - Start-up losses

One of the training participants posed a question, about how KVTC could achieve TPM. The consultant highlighted the importance of establishing maintenance systems to monitor machine usage, maintenance, inspections, and servicing. Any problems that arise before scheduled maintenance should be addressed immediately. Additionally, all individuals who use the machine, from lecturers to students, should be involved in its upkeep.



*Class in session*

## 11. Kaizen Consulting Process

The training also covered Kaizen consultancy process which consists of 4 steps:

- I. Engagement Phase: is the first phase in which the problem is clearly defined and understood.
- II. Service delivery: Proper planning, proposing solutions, and developing them while identifying and mitigating potential risks.
- III. Implementation phase: Utilizing an action plan to carry out the proposed solutions.
- IV. Closure of the project cycle: this is the final phase, Evaluating the achieved results and submitting a report.

Various consultancy models were discussed, including the expert model, doctor-patient model, and process consulting model. The process consulting model, where the consultant acts as a facilitator to help the organization find internal methods for resolving issues and implementing change using existing resources, is often preferred.

## 12. Kaizen Consultancy Framework

In furtherance, the training session also covered the Kaizen Consultancy Framework The QC story is one such framework used to enhance efficiency and effectiveness in problem-solving activities. The framework follows the Plan-Do-Check-Act (PDCA) cycle, consisting of five steps:

- I. Selecting a theme for improvement
- II. Understanding the current situation and set the target:
- III. Developing activity plan
- IV. Analysing the cause of the problem
- V. Developing and implementing improvement measure
- VI. Confirmation of results
- VII. Standardizing and maintaining the improvement

## 13. 7 QC Tools

Lastly the training introduced the 7 QC tools which are used for representation. The 7 tools are grouped into three categories:

- I. Grasping existing situation**
  - a. Check sheet
  - b. Histogram
  - c. Stratification
- II. Clarify the Problem**
  - d. Pareto chart
  - e. Cause and effect diagram
- III. Investigate the cause**
  - f. Scatter diagram
  - g. Control charts

These tools are valuable for graphical representation, as graphs present results and trends in a clear and readable manner.

## 12. Challenges

Challenges faced during the training included the limited duration and the need for more practical sessions to fully understand certain concepts.

## 13. Recommendations

Based on the Kaizen training conducted the recommendations included conducting the last level of Kaizen training at KVTC to apply the principles learned, establishing a QC circle, using waste elimination mechanisms to reduce idle time in simulator and machine training, and establishing a Memorandum of Understanding with KiZ.

## 14. Training materials

The training materials used in the five day training were shared with the training participants future reference.

## 14. Conclusion



In conclusion, the training provided valuable insights and knowledge on promoting quality and productivity improvement. The participants gained valuable skills that will enhance their ability to deliver effective training and guidance to students at KVTC.



*KVTC staff and KiZ staff pose for a group picture at the end of the 5-day training*

# STAFF DEVELOPMENT



|                            |   |                       |   |
|----------------------------|---|-----------------------|---|
| <b>Event Name</b>          | Kaizen Training Level 1 & 2   | <b>IO Number</b>      | 50749821  |
| <b>Venue</b>               | Kaizen Institute of Zambia Facility   | <b>Duration</b>       | 5 days  |
| <b>Start Date</b>          | 26-Jun-23   | <b>End Date</b>       | 30-Jun-23   |
| <b>Facilitator</b>         | Kaizen Institute of Zambia  | <b>Assistant</b>      | NIL   |
| <b>Batch Number</b>        | PED 01  | <b>Contact Hours</b>  | 40 hours  |
| <b>Batch Score</b>         |   | <b>Feedback Score</b> | 50%   |
| <b>Report Prepared By:</b> |   | <b>Received By:</b>   |   |
| <b>Name</b>                | Chipo Nkomo   | <b>Name</b>           | Chrispin Kakoma   |
| <b>Signature</b>           |  | <b>Signature</b>      |  |
| <b>Date</b>                | 06-Jul-23   | <b>Date</b>           | 06-Jul-23   |



## TRAINING ATTENDIES



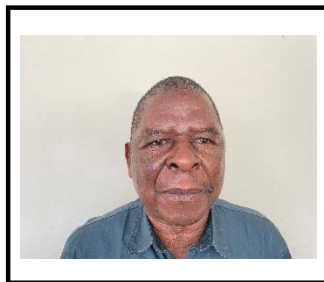
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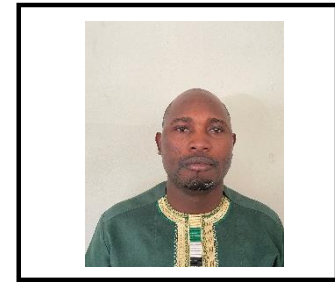
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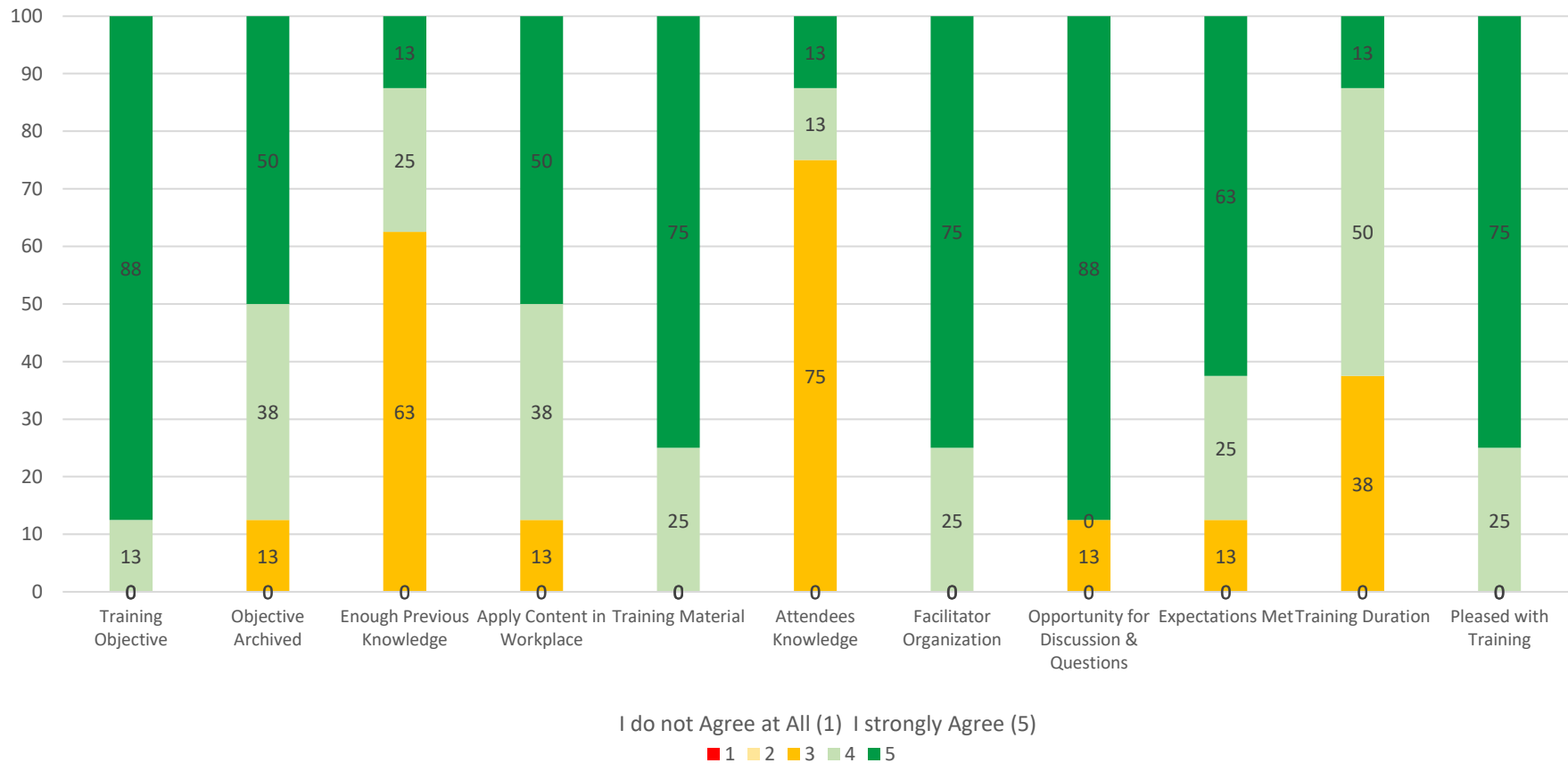
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|               |                                     |                   |           |                    |                            |
|---------------|-------------------------------------|-------------------|-----------|--------------------|----------------------------|
| <b>Course</b> | Kaizen Training Level 1 & 2         | <b>Start Date</b> | 26-Jun-23 | <b>Facilitator</b> | Kaizen Institute of Zambia |
| <b>Venue</b>  | Kaizen Institute of Zambia Facility | <b>End Date</b>   | 30-Jun-23 | <b>Assistant</b>   | Nil                        |

### TRAINING CONTENT FEEDBACK REPORT



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## What did you find most beneficial?

- ❖ Learning Kaizen 5S and the necessity of applying it in an organisation
- ❖ The entire training was beneficial
- ❖ The whole course content
- ❖ Kaizen Consultancy process
- ❖ The 5W1H
- ❖ The whole Kaizen concept
- ❖ The whole training was very beneficial
- ❖ How to solve organisational challenges
- ❖ 7 Quality Control tools for graphical representation



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## What did you find least beneficial?

- ❖ The training period was short therefore, the content was compressed
- ❖ Nothing
- ❖ Nothing
- ❖ Nothing
- ❖ Nothing
- ❖ Nothing
- ❖ Nothing
- ❖ Nothing



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## Any other points of view?

- ❖ My expectations were surpassed and I can say that the training was very good
- ❖ A training should be conducted at KVTC to implement 5S
- ❖ Signing an MoU with Kaizen in the future
- ❖ The facilitators were very well prepared and well coordinated
- ❖ The course was well tailored to suite what is needed at KVTC
- ❖ Kaizen is actually a game changer to the modern workplace
- ❖ The duration of the training must be increased to 10 days
- ❖ Kaizen knowledge is very important for development to be taken very seriously by all participants



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# STAFF DEVELOPMENT

# KAIZEN TRAINING

Kaizen Institute of Zambia Facility

26<sup>th</sup> June, 2023 to 30<sup>th</sup> June, 2023



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## Facilitator Biography

**Institution Name:** Kaizen Institute of Zambia

### Background

The Kaizen Institute of Zambia Limited (KiZ) was established by Government, as a non-profit making organization in 2014 to promote Quality and Productivity improvements in Public and Private organizations. The KiZ provides the following:

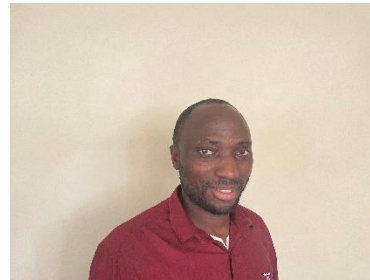
1. KAIZEN training and Certification of Kaizen Consultants and Kaizen Practitioners.
2. Promote public awareness of Quality and Productivity through Kaizen Seminars & Conferences.
3. Kaizen consulting services.

Kaizen is an established set of methodologies that will bring improvements to your business. Kaizen methodologies are now standard practice in developed world. We deliver improvements programmes from the shop floor to the board room working alongside the organizations staff at their place of work. Our intervention methodology is to deliver small packets of theory that are then applied in practice where staff can learn by doing.

### Facilitators



**Mr. Fred Sichikolo**  
Senior Consultant



**Mr. Sishekanu Mwaluka**  
consultant



**Mr. Norah Malambo**  
consultant



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## KiZ CEO delivering the opening remarks at the beginning of the 5 day training



## Training facilitator Mr. Sichikolo introduces the training participants to Kaizen



## Mr. Sichikolo introducing the concept of Quality Control to the team





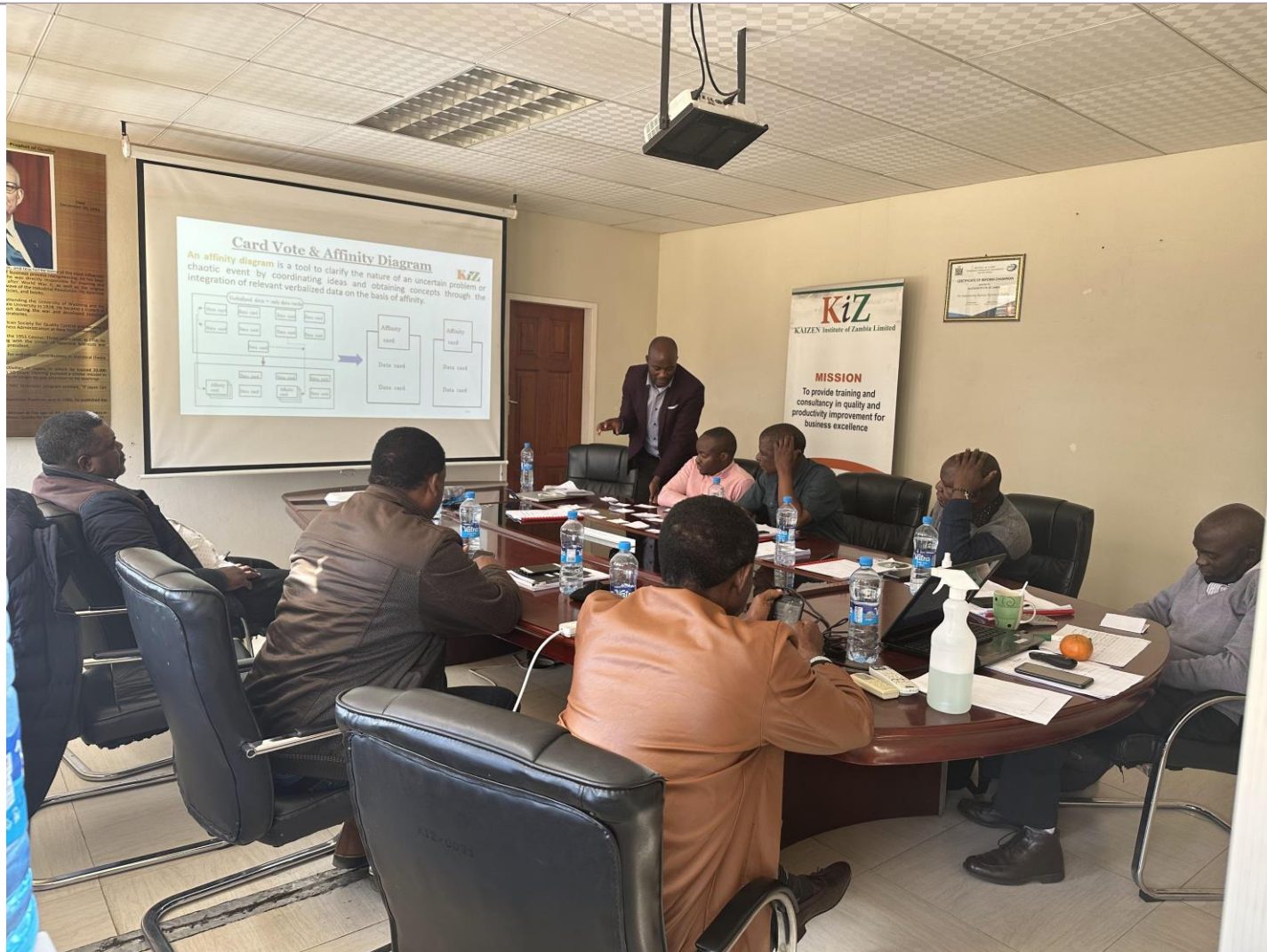
## Mr. Sishekanu introducing the concept of Total Productive Maintenance to the team



## Ms. Malambo introducing the basics Productivity Management to the team



## Training team practicing the card vote method of the theme selection process



# Training team practicing the card vote method of the theme selection process under the Kaizen consultancy framework



## Training participants pose for a group photo at the end of the Kaizen training

