Leaders in Education and Training for Sustained Growth in Africa

Management of Technical and Vocational Education & Training (TVET) Institutions

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Presentation Outline

• College Structure and Management
• Industry Collaborations and Partnership
• Student Admission and Services
• Total Development of Students
• Lifeskills Learning and Development
• E-Learning in TVET
• Campus Tour
College Structure and Management
Key Strategic Consideration in the Development of TVET Colleges

- To meet the national education and economic objectives
- To provide a holistic learning experience for students
- To provide lifelong learning opportunities for adult learners
- To facilitate capability development of staff
- To achieve organisation and academic excellence
- To promote positive image for TVET
Key Learning Points

- Training for Economic and Social Objective
- Training for Lifelong Employability
Development of ITE College East

• First comprehensive TVET College developed by ITE
  - 4 Schools (Applied & Health Sciences, Business & Services, Engineering and Info-Comm Technology)
  - More than 25 Nitec and Higher Nitec Courses
  - 7800 PET students
  - Up to 8000 CET training places

• An autonomous College of ITE supported by 500 qualified and competent academic staff and 120 functional support staff.

• Strong industry partnership with more than 80 technology leaders, and global connection with 7 overseas TVET Colleges
Development of ITE College East

- Pioneering new TVET practices
  - Centres of Technology & Joint Certification
  - Use of Simulators for TVET
  - Student Enterprise Education
  - Student Leadership Development
  - Experience ITE Centre
Key Learning Points

• Innovation and Collaboration in VTE
• Resource Optimisation
Key Learning Points

- Upholding VTE Quality – Common National Skills Standard
- College Autonomy
- Collaboration vs Competition
Key Learning Points

• Strategic Focus
• Talent Development
“Hands-On, Minds-On & Hearts-On” Education Model

“HANDS-ON”
- Bio-Chemical Technology
- Nursing

“MINDS-ON”
- Robotics
- Digital Media Design

HOLISTIC LEARNING ENVIRONMENT

“HEARTS-ON”
- Community Service
- ITE SAFE Home Project

Education Outcomes
1) Market-relevant, Enterprise and Adaptable Graduates for a Global Economy
2) Lifelong Learners for Lifelong Employability

Successful Graduates
Key Learning Points

- Constancy of Purpose
- Holistic Development of Students
College Culture Development

- Integrity
- Teamwork
- Excellence
- Care [care for students, staff, community and environment]
- ITE CARE Culture is embraced by all ITE staff and students
College Culture Development (for Staff)

• Integrity
  - Honesty and sincerity in words and actions towards others
  - True to profession and organisation

• Teamwork
  - Work as a team and help each other
  - Engage in collaborative partnerships for win-win outcomes

• Excellence
  - Strive for higher benchmarks to build the best organisation
  - Continue to improve and innovate to add value to our customers and stakeholders

• Care
  - Go the extra mile, treating others the way we like other to treat us
  - Be thoughtful to others and show genuine interest
  - Be mindful of the environment and minimise wastage
College Culture Development (for Student)

If getting ahead meant doing the wrong thing, would you?

If winning meant lowering yourself to lift your team, would you still play?

If no one was watching, would you still push for the best?

If no one stopped to help, would you?
Key Learning Points

- Simple, Common and Consistent Communication for Staff and Students
- Practice of College Culture
Professional Conduct & Ethical Behaviour

• Applied and Health Sciences
  ➢ Confidentiality, Dedication, Safety

• Business and Services
  ➢ Service, Entrepreneurship, Professional Image

• Engineering
  ➢ Precision, Safety, IPR

• Information Communication Technology
  ➢ Service, Security, IPR
Key Learning Points

- Image Building for Students
- Advance Preparation of Students for Workplace
College Resource Development and Management

• Human Resources
  - Recruitment of competent and experienced professionals based on technology roadmap
  - Staff capability enhancement, staff capability expansion, staff capability conversion

• Financial resources
  - Planning and management of recurrent, development and other funds
  - Management accounting and reporting

• Physical resources
  - Planning and design of training facilities
  - Optimal utilisation of training facilities
Key Learning Points

- Resource Optimisation
- Tapping Resources from Multiple Sources
Industry Collaborations and Partnership
Industry Collaboration and Partnership

- Consultation and inputs on manpower demand and curriculum development
- Sponsorship and collaboration on the development of Centre of Technology
- Development of Joint-Certification Programmes
- Technology transfer, hardware, software and programme/event sponsorship
- Industry attachment and internship programmes
- Scholarship, sponsorship and financial assistance for students
- Appointment of Visiting Professionals
- Consultancy and customised training programmes
Industry Inputs on Manpower Demand and Curriculum Development

- Appointment of Training Advisory Committee
- Industry/employer survey and focus group discussion
- Participation in DACUM process
- Hosting of industry visit
Development of Centres of Technology

• Sponsorship of hardware and software from industry partners

• Engagement of ITE to conduct local/overseas customer training programmes for industry partners

• Industry partners gain from availability of well-trained technical personnel to expand their market share
Development of Centres of Technology

- A key strategy for capability development
- Specialised technology training for both students and staff
- Collaboration with industry partners to achieve 3 key objectives
  - Technology transfer
    Industry → ITE → Students/Clients/Adult learners/SMEs
  - Development of Joint Certification Programmes
  - Live projects/internship for students
Development of Joint Certification Programme

• Linking ITE training to professional certification offered by industry leaders → Advantage ITE students

• Structured both as elective modules for full-time ITE students as well as post-NITEC programmes for adult learners

• Expansion of joint-certification programme to regional countries
Technology Transfer, Hardware/Software/Programme Sponsorship

• Win-win collaboration between industry and educational institution
  - Industry players promote popularity of their hardware/software products besides community service
  - ITE provides up-to-date training for its students to meet the needs of industry

• Sponsorship of events/skills competition as part of the marketing strategies adopted by industry

• Capitalising on the strengths of each other, technology workshops/seminars jointly organised by industry leaders and ITE to benefit ITE staff, students and the customers of the industry partners
Industry Attachment and Internship Programmes

• Provide realwork experience for ITE students
• Opportunities for teaching staff to update their knowledge and skills on application of technology in the industry
• Pre-internship preparation of students
• Sharing of learning experience by staff and students on completion of attachment
• Expansion of industry attachment programmes to other countries
• Support and recognition given by employers on industry attachment and internship
Scholarship, Sponsorship and Financial Assistance for ITE Students

• Industry partners offering scholarship to outstanding ITE students who had excelled in their studies

• Employers in critical industry sectors offering sponsorship scheme to attract new/existing ITE students to join their industry/firm

• Employers donations to assist needy ITE students
Appointment of Visiting Professionals

- Platform for successful professionals in the industry to contribute their knowledge and services to VTE
- Honorary appointment scheme
- VPs could contribute in design and development of training programmes and training facilities. They could also conduct training for staff and students, or provide professional leadership in technology projects
Industry Projects and Customized Training Programmes

- Opportunities for teaching staff to showcase their technology competency as well as to update their industry
- Address the technology and training needs of SMEs, in collaboration with industry partners
- Supplementary learning opportunities for students assigned to work on the industry projects with staff
Student Admission and Services
TVET Student Admission Processes

- Centralised approach adopted for admission of both ‘O’ & ‘N’ level school leavers (JAE & JIE)
- On-line registration and acceptance
- Selection by merit, based on academic performance
- Special selection exercise based on aptitude, interest, talent and/or physical fitness for selected courses
- Recognition of prior learning
- Admission by entrance test
- Provision for appeal
- Course advising and counselling

Management of TVET Institutions
End-to-End Student Services

- Orientation
- Bursary and Financial Assistance Schemes
- Counselling and Pastoral Care
- Student Councillors
- Realwork @ College
- Awards & Recognitions
- Student Conduct and Discipline
- Foreign Student Services
- Career Fair
Orientation

• To induct new students to the new learning environment
• To build up their self-confidence and self-esteem
• Dialogue with College Management and Class Advisors
• Ice-breaking activities
• Application for student enrichment programme and CCAs
• Motivational talks by Student Ambassadors, College Management and External Professionals
Bursary and Financial Assistance Schemes

- Community Development Council & Citizens’ Consultative Committee- Institute of Technical Education (CDC & CCC-ITE) Bursary Scheme
- Special Student Assistance Scheme (SSAS)
Counselling

- Career and Academic Advising
- 3-Tier Student Counselling Services
  - All class advisors as first line counselors
  - Professional counselling at ‘We-Care’ Centre
  - Linkages with external expertise
Realwork @ College

- Opportunity for students to be exposed to a wide range of real work activities
- Learning beyond the classrooms
- Platform to assist needy students
- Courseware Development Assistant, Admin Assistant, Facilities Maintenance Assistant, IT Assistant, Laboratory Assistant and Teaching Assistant appointment
- Competitive hourly payment rate for Realwork done
- Tracking and monitoring of Realwork@College
Awards and Recognitions

• Student ITE Care Commendation Awards
• Student CCA Awards
• Student Academic Awards
• Sponsorship, Scholarship and Incentive Scheme
Student Conduct and Discipline

Broad strategies adopted to tackle the problems:

- Rules and regulations/preventive actions
- Education and counselling
- Student profiling and engagement
- Policing mechanism
- Framework and guidelines to deal with ill-discipline students
Foreign Student Services

• One-stop Foreign Student Services Unit to provide pre-enrolment and in-training support
• Registration for training places and application for student visa
• Arrival and accommodation
• Financial management
• Culture adjustment and assimilation
• Buddy & mentor appointment
Career Fair

- Targeted at graduating class of ITE Students
- To allow graduating students find a job or obtained awareness on different aspects of employment prior to graduation
- Annually in Nov, before the final exam series
- Joint-College Event – 30 companies, more than 7000 graduating students
Total Development of Students
Total Development of TVET Students

**Philosophy**

**What**
- Technological Competency
- Social Competency
- Methodological Competency
- Innovation & Enterprise Spirit

**How**
- Relevant high quality training courses
- Centres of Technology & Industry Collaboration Projects
- Multi-discipline & cross-level learning
- Student Leadership Prog
- Student Enrichment Courses
- Community Outreach Prog
- CCAs
- Values & Culture Development
- Life Skills Learning
- PEPP Pedagogic Model
- E-learning
- Mass lectures & tutorials
- Student Enterprise Development Prog
- Skills Competitions
- Realwork@CE
- PE/CCAs
- Overseas Expedition

**Outcome**
Knowledgeable, Well-trained, Active and Confident Graduates Ready to Contribute to Society & Serve the Community
Total Development of TVET Students

Student Development Centre (7 Developmental Tracks)

- **Academic**
  - ‘O’ level English
  - ‘O’ level Math

- **Entrepreneurship**
  - Development
  - SEED Centre
  - Collaborations
  - Competitions
  - Experimentation

- **Global Citizenship**
  - Overseas Experiential Programmes:
    - *Student Exchange
    - *Industrial Attachment
    - *Community Service
    - *Cultural & Sports
    - International Visits
    - Foreign languages

- **Personal Development**
  - Forums
  - National Youth Council Programmes
    - Personality/Confidence development

- **Leadership Development**
  - Blaze 1 & 2
  - Leadership Seminars

- **Technology Development**
  - TIC
  - COT Collaboration Projects
  - School-based Innovations
  - Skills Competitions

- **Co-Curricular Activities**
  - School-based CCAs
  - Sports-related CCAs
  - Non Sport-related CCAs
Total Development of TVET Students

Student Development Centre (Outcomes)

- Students armed with skills (technical and academic) beyond and outside of the School curriculum
- Students who are enterprising and able to start up and nurture business ideas
- Students who are aware of global issues and developments, and who are able to adapt to different cultures
- Students who have wide interests, with good grounding in sports and arts
- Students who are aware and concerned about community/environmental needs, and prepared to engage in community work
- Students who are confident and ready to contribute to society
Lifeskills Learning and Development

Active Citizency

Life Skills

Core Values
- Confidence
- Respect
- Pride in Work

- National & Social Awareness
- Life Long Learning

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Lifeskills Learning and Development

Core Values

• Confidence – realizing self-worth with healthy self-esteem
• Respect – for self and others
• Pride in Work – professionalism, includes self-motivation, self-discipline, social grooming and work ethics
• National and Social Awareness – national consciousness, awareness of opportunities, challenges, issues and threats, social responsibility, care and compassion for the community and sense of inclusiveness
• Life Long Learning – resilient, adoptable and global mindset
Lifeskills Learning and Development

Life Skills Curriculum

- Communication Skills
- Personal and Interpersonal Skills
- Creative and Critical Thinking Skills
- National Education
- Global Awareness
- Entrepreneurship
- Financial Planning
- Career Development and Job Seeking Skills
- Service Excellence
Lifeskills Learning and Development

Curriculum Delivery

- Life Skills for Personal Development (110 hours)
- Life Skills for Work Place (50 hours)

Pedagogic Approach

- Learning Activities
- Projects
- Self Development
E-Learning in TVET
Why e-Learning

• Support different learning abilities
• Inculcate discipline in self-directed learning
• Personalize content and match contents with individual’s learning behaviour
• Provides asynchronous learning environment to the students when and where they need it
• Opportunities for students to carry out remedial lessons to correct deficiencies at their own pace.
ITE’s PEPP&ER (Plan, Explore, Practice, Perform) approach for the implementation of the e-learning modules.

**Enquiry and Reflection**
- To inculcate reflective thinking and learning in students.
- Students and teachers are encouraged to constantly raise concerns and issues by reflecting on the e-learning experience.
- E-learning specialist would support the technical/system problems encountered during the e-learning process.

**PLAN**
- Present e-learning objective, overview of module, and orientate students to e-learning.
- Present knowledge and concepts of module

**EXPLORE**
- Present framework for e-learning with scheduled timetable hours.
- Students are supported through online modes of interaction with teachers.
- e-learning peer tutor

**PRACTICE**
- Present mode of assessing students’ learning via online quiz, tests.
- Present face-to-face sessions to monitor and validate students’ learning progress.

**PERFORM**
- Present in-module assessment
- Present end-module assessment
e-Learning Development Methodology

**Reflect**
(patch up module)

**Plan**
(new e-learning module)

**Explore**
(discuss with ETU and develop by staff)

**Evaluate**
(discuss with other module teachers + students for improvement)

**Practice**
(focus group run - conducted to small Group of students for feedback)

**Perform**
(pilot run to students)
e-Learning Pedagogy (Student Learning)

Evaluate
(student revision SDL + online quiz (advance level))

Reflect
(student Feedback On SDL and pedagogy)

Plan
(student develop own learning Mode = SDL + email + bulletin + technical support)

Explore
(student adopts SDL + online quiz (basic level))

Perform
(Tutorial / assignment – Contact hours – classroom)

Practice
(Revision class- Contact hours – common lecture)

* Minimum implementation is at least 1 module on e-learning per course
e-Learning Resource Efficiency

• Manning Efficiency
  Reduction in contact hours implies
    - Lecturers can spend more time for weaker students
    - Lecturers can focus more on professional development

• Teaching Resource Efficiency
  - Possible increase in students intake with the existing resources
  - Sharing of resources across all 3 ITE Colleges, as well as our licensed training partners locally and overseas
e-Learning Supporting Resources

- e-Tutor
- e-Student
- ITE HQ Educational Design and Technology Division
- ITE College level e-Learning Technology Unit
- ITE e-Learning Specialists