Needs assessment of competency based program		
Specific Requirements	**Recommended Features**	**Present Status**
Electrical-Circuit Details		
-Power circuits	-Four wire, three-phase(4w 30)	Not as per standard
-Branch power circuits	-One per machine installed in wall	Not as per standard
-Spare power circuits	-One for every four active circuit	Not as per standard
-Spare light circuits	-One for every five active circuit	Not as per standard
-Overload protection on power circuits	Circuit breakers(cb)	Not as per standard
Power circuit installation	-Installed in cable trunkings and pvc or galvanized conduits	Not as per standard
-Installation of lighting Circuits)To	Installed in cable conduits	Not as per standard
Outlets)J$21.1992	Installed on wall at intervals of 3m	Not as per standard
-Power cut-off safety button)Standard	10m	Not as per standard
Storage and Special Areas		
-Location of waste area	Wooden container in activity areas size between1.50 and 2.0cu.m	Not as per standard
Student changing room	Approximately 20 sq metres	Not as per standard
Space for storing student property	4 sq. metre with 1 double locker per 2 trainees	Not as per standard
Location of display area	Near shop entrance	Not as per standard
Space for display area	Approximately 1 cu. metre	Not as per standard
Location area for instructor	Near entrance door	Not as per standard
Space for instructor	Approximately 5 sq. metre	Not as per standard
Location of open areas	Entrance way, tool crib, around wash basin, around water cooler, around instructors area	Not as per standard
Width of aisle and travel areas	Minimum of 1.3m	Not as per standard
Location o supply and material storage	Approximately 28cu.metre	Not as per standard
Space for equipment (tools, machine accessories, etc) storage	Between 6.0 and 9.0 cu. metre	Not as per standard
Chalk board	Between 2.4 and 2.8 metre	Not as per standard
Notice board	Between 1.5 and2.4 metre	Not as per standard

Space for installing model fixtures	Between 6.0 and 9.0 metre	Not as per standard
Ventilation		
Ceiling	It should reduce the impact of direct sunlight on the users of the facilities	Not as per standard
Heat extraction	Install extraction fan system	Not as per standard
Air circulation	Windows should allow for the free flow of natural air	Not as per standard
Plumbing Facilities		Not as per standard
Drinking water	Water cooler per 25 students to be located outside workshop	Not as per standard
Sanitary facilities	Separate for male and female trainees	Meets requirement
	-1 toilet pet 25 trainees	Meets requirement
	-1 urinal per 50 trainees	Meets requirement
	-1 toilet each for male and female staff	Meets requirement
	4 showers per 100 trainees	
	1 shower each for male and female staff	Not as per standard
	6 face basins per 100 trainees	Not as per standard
	1 basin each for male and female staff	Meets requirement
General Safety		
Colour code for safety		
-Safe condition	Green	Not as per standard
-Traffic and house keeping	White and black	Not as per standard
-Caution and physical hazards	Yellow	Not as per standard
-Dangerous parts of machines Or energized equipment	Orange	Not as per standard
Danger, emergency stop on machine, fire equipment	Red	Not as per standard
		Not as per standard
First –aid facilities	-2.54cm, 5.08 and 7.7cm bandages rolls	Not as per standard
	-Gauze and cotton	Not as per standard
	-Waterproof adhesive	Not as per standard
	-Mercurochrome	Not as per standard
	-Aromatic ammonia	Not as per standard
	-Analgesic balm	Not as per standard
	-Scissors, tweezers and cotton wound	Not as per standard

	-Applicators	Not as per standard
	-Steripads	Not as per standard
	-Waterproof Band Aids	Not as per standard
	-Tourniquet	Not as per standard
	-Boric acid solution	Not as per standard
	-Eye drop lotion	Not as per standard
	-Burn ointment	Not as per standard
	-Eye wash lotion	Not as per standard

NEEDS ANALYSIS FOR FACILITIES & EQUIPMENT REQUIRED FOR THE PLUMBING & PIPE FITTING PROGRAMME

ITEM	HAND TOOLS	SIZES		TRAINING GROUP	IN STOCK	REQUIRED
		Inch	MM	20		
1	Pipe Treaders (Enclose Ratchet NPT)	1/2-3/4	12-50	5	Nil	5
2	Pipe Treaders (Enclose Ratchet NPT)	1/4--3/4	6-20	2	Nil	2
3	Pipe Treaders (Enclose Ratchet NPT)	1--2	25	4	Nil	4
4	Pipe Treaders	½-¾	12-25	3	Nil	3
5	Three Way Pipe Treaders (NPT)	⅜ - 1	10-12-25	2	Nil	2
6	Three Way Pipe Treaders (NPSM)	⅜-½-¾	10-12-25	2	Nil	2
7	Bolt Treaders Ratchet	¼ - 1	6-25	2	Nil	2
8	Pipe Taps (carbon Steel right hand)	1/8-1/4	3-6	1	Nil	1
9	Pipe Taps (carbon Steel right hand)	⅛	3	4	Nil	4
10	Pipe Taps (carbon Steel right hand)	½	12	4	Nil	4
11	Pipe Taps (carbon Steel right hand)	¾	20	4	Nil	4

12	Pipe Taps (carbon Steel right hand)	1	25	2	Nil	2
13	Complete Pipe & Bolt Treading Machine (535) (NPT)				Nil	
14	Acc. With cutter, reamer, and stock & die			1	Nil	1
15	Heavy duty Pipe cutter (1 & 3 wheel)	⅛ - 1 1/4	3-32	4	Nil	4
16	Wide roll pipe cutter	1 ½ - 2	12-50	2	Nil	2
17	Bench Yoke Vise	⅛ - 4	3-100	4	Nil	4
18	Bottom Screw Bench Chain vice	⅛ - 4"	3-100	4	Nil	4
19	Top Screw Bench Chain Vice	⅛ - 4	3-100	4	Nil	4
20	Open Side Vise	⅛ - 4	3-100	4	Nil	4
21	Portable Tristand Chain Vise			2	Nil	2
22	Straight Snips		178	3	3	Nil
23	Duckbill Snips (circular)		254	2	2	Nil
24	Aluminum Level Rust & Warp Proof		610	10	3	7
25	Long Handle Square Point Shovel			3	Nil	3
26	D. Handle Drain Spade			2	Nil	2
26	Clay Pick (axe) with handle			2	Nil	2
27	Propane Torch Kit			5	Nil	5
28	Acetylene Torch Kit with Standard a Equipment			1	Nil	1
29	Gasket Cutter			4	Nil	4
30	Valve Reseating Tool Kit			2	Nil	2
31	Faucet Reseating Tool Kit			5	Nil	5
32	Safety Goggles			20	Nil	20
33	Screw Driver Phillips	6 ½	162	20	Nil	20
34	Screw Driver Phillips	8	198	10	Nil	10
35	Screw Driver Phillips	10 1⁄4	256	6	Nil	6
36	Square Blades Screw Driver	6	150	4	Nil	4
37	Square Blades Screw Driver	8	200	4	4	Nil
38	Square Blades Screw Driver	9 ½	162	4	4	Nil
39	Square Blades Screw Driver	11 ½	287	1	1	Nil

40	Curver Claw Hammer			1	1	Nil
41	Ball Pein Hammer 454g			12	Nil	12
42	Ball Pein Hammer 907g			4	Nil	4
43	Sledge Hammer			1	Nil	1
44	End Pipe Wrench			1	Nil	1
45	Oil Can 5 liters			1	Nil	1
46	Oil can 1 liters			10	Nil	10
47	Center Punch			10	Nil	10
48	Soldering Kit			10	Nil	10
49	Lead Pots			2	Nil	2
50	Canvas Glove			20	Nil	20
51	Testing Plug (wind nut type)			5	Nil	5
52	Lead Ladle			2	Nil	2
53	Caulking Tool Set			7	Nil	7
54	Junior Hacksaw			4	Nil	4
55	Star Drill			5	Nil	5
56	Box Wood Faulding Rule (60cm)			6	Nil	6
57	Hale Round Files			18	Nil	18
58	File Chord Cleaner			2	Nil	2
59	Flange Square			5	Nil	5

Findings

Based on the fore goings, it is evident that the facilities available at the Government Technical Institute are not in keeping with the Facilities Standards adapted by the National Council on Technical and Vocational Education and Training(NCTVET) 2009, for training in Plumbing.

FMS: Fail to meet the standards. (The quality and or condition of the facilities/items evaluated did not satisfy the required standards.)

Recommendation

It is therefore recommended, that measures be put in place to secure adequate facility in keeping with those required for training to be conducted successfully.