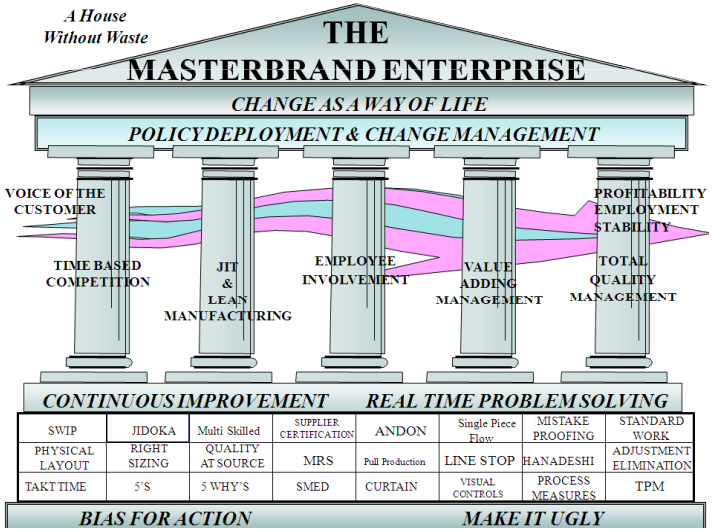
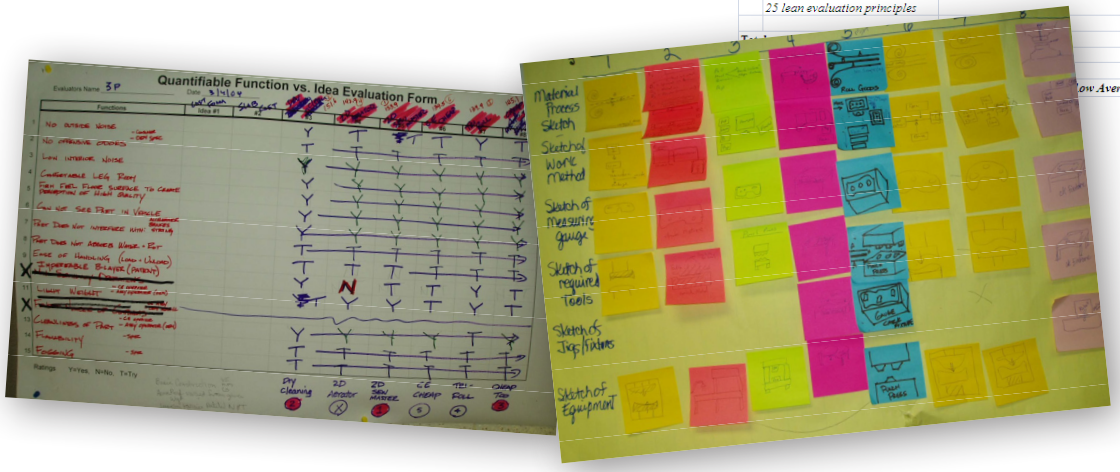


No.	Lean Principle	Definition	Dble Shroom	Glue & Shroom	Royale w/Chse
1	Meet Takt Time	Percent Load closely matches TT…closer the better	5	4.9	3.9
2	One Piece Flow	Process is designed to match one piece produced at a time	4.9	3.9	4
3	Operator Involvement	Less is better…resulting in higher score.	3.8	2.6	3
4	As Simple As Possible	The Simplier the better	3.5	2.5	2.4
5	Hanedashi	Self ejecting or unloading of part…more the better.	2.1	2.1	2.3
6	Chaku-Chaku	Load and Unload points are close together; Operator is just "Loading"	2.6	2.1	2.9
7	Poka-Yoke	Mistake Proofing exists to prevent quality issues (e.g., part orientation)	3.4	3.5	3.3
8	100% Gauging	The more the better	2.5	2.4	3.4
9	Jidoka	Autonomation - will not let you produce a bad part	2.6	2.4	2.1
10	8 Sigma Process Capability	6 sigma = 3.4 DPMO; 1DPMO=5; 3.4DPMO=4; 3=xxxDPMO; 2=xxxDPMO; 1=xxxDPMO	1	1	1
11	Value Added Operations	No waiting, extra motions…operations the customer is willing to pay for	2.9	2.9	2.7
12	SMED Changeover	Single Minute Exchange of Die - # of changeovers, Amount of changeovers, …can happen within TT	1	1	1
13	Minimal Capital	Capitalize at a level consistent with TT; 60-46=5; 75-61=4; 90-76=3; 105-91=2; 120-106=1	4	3	2
14	Tooling Cost	Lower costs are better; 320-300=5; 340-321=4; 360-341=3; 380-361=2; 400-381=1	2	4	3
15	Recurring Tooling Cost	Lower the recurring tool cost the better	2.9	2.7	2.5
16	Machine Maintenance	Total Preventative Maintenance; The fewer the better; The less complicated the better	3.3	2.7	2.3
17	3D (Dangerous, Dirty, Difficult)	Is the operation… Less is better	4.4	1.7	2.3
18	Future Challenge	Will this process meet future business objectives…higher score better.	4.3	3.5	3.3
19	Known Process		4.3	4.4	4
20	Readily Available Equipment		3.8	3.7	3
21	Familiar Technology	"Technology" = material, process, information, etc.	4.4	4.3	4
22	Minimal Time To Develop		3.6	3.1	3.2
23	Labor $/ PCE	4 operators @ 50 sec. CT, 2 cavity tool; 1=$1.55; 2=$1.16; 3=$.77; 4=$.39; 5=$.0			
24	Material	8.40-6.30 = 5; 6.80 = 4; 7.30 = 3; 7.80 = 2; 8.30 =1	1	1	1
	25 lean evaluation principles				
			73.3	**65.4**	**62.6**
			217.9	**194.2**	**185.8**
		low Average; 1 = Poor			



developed with:

CASCADE engineering

Production Preparation Process or 3P Methodology

Developed and implemented an advanced lean concept to enhance product development time to market, and achieve breakthrough changes to the production system while at the same time reducing cost and increasing quality.