

NAME _____

Due:

Points: ____ / 20 (Assessments)

House of Quality Construction, Step 02 (using Survey results)

Read chapter 6 from the reference text. Focus on the QFD / HOUSE of QUALITY Steps

Begin construction of a House of Quality (HOQ) for your design problem (getting from state A to state B). As the initial build, digital (printed) or hand-written (on existing template) submission is acceptable. Anticipate full digital version requirement (you will present your HoQ and include in FUNCTIONAL / ENGINEERING SPECIFICATIONS formal report).

Chapter 6. Complete Steps 2, 3, and 4 of your House of Quality build.

Recall:

Step 1: Identify the Customers, Who Are They?

*(Complete, with Survey and Survey Submission (Homework_01))*Step 2: Determine the Customers' Requirements: **WHAT** do the Customers Want?

(Use Survey Results).

Step 3: Determine Relative Importance of the Requirements: **WHO vs WHAT**(use fixed sum method, $\Sigma=100$).

Recommend you solicit feedback for this step also. A formal survey is not required, however, use classmates, professors, colleagues, friends, family, consumers, etc.

REQUIRED- SOLICIT the INSTRUCTOR ... via email, ask weighting advice on a few applicable requirements (as the Instructor customer) Customer feedbacks (i.e., the Instructor considers the viewpoint as a Customer).

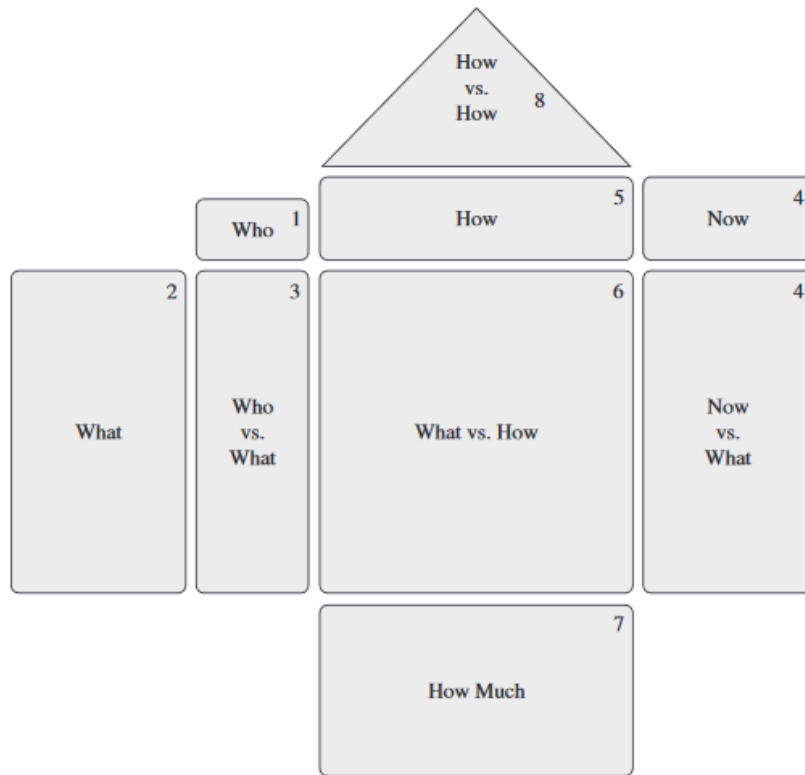
Step 4: Identify and Evaluate the Competition (**NOW**): How satisfied are the Customers Now?(Competitor Benchmarking) **NOW vs WHAT**. Depending on your project, this may be peers.

The internet (forums / reviews) are also possibilities. Research. Survey

Completion of these steps will build the “west wing and east wing” of your HoQ (your “left” and “right” rooms). See reverse for examples (from handout).

Understand the HoQ will be an iterative process. Several revisions will occur.

Note: Review Table 6.1 ... “Customers” is a broad term. You must meet regulatory requirements. If you’re designing a better George Foreman Grill, it should be UL Listed. If you’re designing a new artificial heart, you need FDA approval.



○ = 9
○ = 3
△ = 1

What		Who		How												Now				
		Passenger	Agent	Seat width relative to frame width	Steps to adjust seat height	Force to adjust seat height	Force to slide 95% male passenger	Lifting force required for agent	Push force over 2 cm bump	Force to push aisle chair	Time to transfer between seats	Fore/aft tipping force at handrails	Side tipping force at handrails	<div>1 = very bad</div> <div>5 = very good</div>					<div>► Colub</div> <div>■ Dellor</div>	
				↑	↑	↓	↓	↓	↓	↓	↓	↑	↑							
				%	steps	N	N	N	N	N	sec	N	N	1	2	3	4	5		
Transfer from personal to aisle chair	Aisle chair preparation	Easy positioning of seat height	4	4		○	○												►	■
		Easy to position chairs	6	10	○															►
	Passenger movement	Minimum effort for all	15	10			○	○											■	►
		Good lifting position	10	12	○															■
Aisle chair movement		Minimum time for transfer	3	14		△					○								■	
		Easy to move	7	8						○	○		○	○					■	►
		Fits in aircraft aisle	-	-																■
		Good stability	24	10								○	○	►	■					
Transfer from aisle chair to seat	Aisle chair preparation	Aisle chair close to aircraft seat	6	2	○														►	■
		Easy positioning of seat height	5	8		○	○													■
	Passenger movement	Minimum effort for all	15	12		○	○				○								►	■
		Minimum transfer time	5	10		△					○								►	■

Importance (Passenger)	10	9	8	9	9	4	14	5	16	16
(Agent)	11	13	11	7	7	5	14	16	8	8
Colub	85	2	3	20	15	11	7	15	20	15
Dellor	87	3	5	27	25	22	15	18	15	10
Target (Delighted)	90	1	2	20	10	8	7	15	15	10
Threshold (Disgusted)	85	2	4	25	15	12	10	18	20	12