

The table below provides a detailed explanation of figure sense abilities. The first column in this table describes 7 abilities that together comprise figure sense capability. The remaining three columns describe those abilities at three different points on this figure sense continuum. In the table, the terms data or evidence are to be viewed from a broad perspective. As students move up the figure sense continuum, they add to their current abilities; thus the abilities for someone at the medium-ability level include those listed at both the medium and low levels. Thus, the abilities for a student at the high level include those at the low, medium and high levels. Data or evidence can be: i) quantitative data, ii) qualitative data, iii) statements of facts from a known source, or iv) claims made by a known source.



Summary of Figure Sense Development

Figure Sense Abilities	Figure Sense Skill Level		
	LOW The student is able to:	MEDIUM The student is able to:	HIGH The student is able to:
The student will have the ability to:			
1. Reason using mathematical thinking.	Use basic math skills typically learned in secondary school. Less able to apply these skills in real applications.	Work with percentages, large numbers, small probabilities, simple graphs, and simple word problems.	Use mathematical thinking and math to help solve problems in various business disciplines.
2. Recognize questionable data or evidence.	Recognize large discrepancies in data or claims that are obviously suspect.	Compare data or evidence to what is reasonable or what was expected. Identify discrepancies in data. Have a healthy skepticism about data or evidence.	Evaluate the reliability of the source of data or evidence and factor that into their evaluation of the quality of the data.
3. Understand when new data is needed or when information from a different perspective is needed.	Understand specific ways to transform available raw data into more useful forms for a variety of business disciplines.	Recognize when important information is missing and know how to obtain data related to the missing information.	Recognize when it is helpful to obtain data or evidence from a new or different perspective and solicit that data or evidence.
4. Understand the context of a problem and clearly define the problem.	Define a problem with simple context.	Identify simple abstract models that characterize the important features of a problem.	Identify the stakeholders in a given situation, solicit input regarding their needs, and include those needs into a definition of the problem.
5. Understand the assumptions required for data or evidence to be valid.	Recognize when a sample has been conducted appropriately so that the data from the sample is reliable.	Assess when the assumptions required for particular data analysis methods are valid so that the results from the analysis are reliable.	Understand and address the impact of human biases on the collection of data, the selection of relevant data, and the interpretation of data.
6. Find the best results, regardless of self-interest.	Recognize when something appears to be wrong with given results, seeks to discover the cause, and informs others who need to know.	Critically evaluate their own initial conclusions and challenge their preconceived conclusions.	Identify potential negative consequences of a recommendation and develop contingency plans to deal with those consequences.
7. Communicate results persuasively.	Create and deliver a professional presentation or report.	Identify their audience and analyze its needs; craft messages that address those needs.	Select the evidence that is most appropriate for the audience and craft a persuasive presentation.