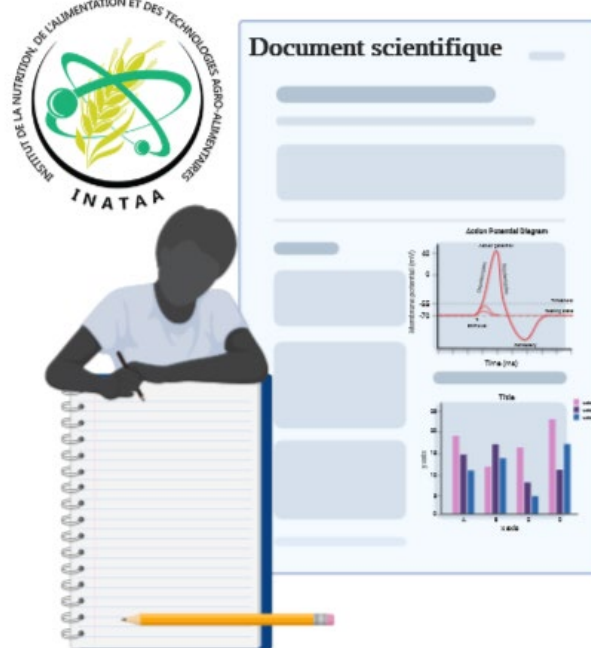**Université Frères Mentouri Constantine 1-INATAA**
1st Year Bachelor in Food Science

Course of
Written and Oral Expressions

TD05. Illustrations in a scientific paper

- **Illustrations are visual elements used in a scientific document to inform the reader independently of the text and employ a graphic universal language. Any visual element tells its story directly and quickly with minimal text.**

- **The two main types of illustrations used in a scientific paper are tables and figures.**

Figures and tables:

- are not mandatory;

- provide maximum information in a minimum of space;

- must be comprehensible independently of the text;

- should be informative in their own right thanks to their captions, subtitles, notes, etc.

- must be cited in the corresponding text;

Avoid redundancy of information between table, figure and text.

1. Tables:

A table is an alphanumeric set (text, numbers), presented in rows and columns. Each box may contain numerical data and/or text, possibly graphic elements.

	Column 1	**Column 2**	**Column 3**
Line 1	Case 1	Case 2	Case 3
Line 2	Case 4	Case 5	Case 6
Line 3	Case 7	Case 8	Case 9

1. Tables:

A painting must have a number (in Roman numerals or Arabic numerals) indicating its order of appearance in the document and a legend (or title).

Tableau 22. Rendement du procédé (Q) et énergie mécanique spécifique (EMS) des pâtes sans gluten à base de riz et celles enrichies en légumes secs

Pâtes	Quantité (%)	Q (kg/h)	SME (kWh/kg)
Riz	0	12,48[a]	0,26[a]
Pois jaune	10	12,00[a]	0,27[a]
	20	12,00[a]	0,27[a]
	30	12,48[a]	0,26[a]
Pois chiche	10	12,00[a]	0,27[a]
	20	12,00[a]	0,27[a]
	30	12,00[a]	0,27[a]
Lentille	10	12,00[a]	0,27[a]
	20	12,96[a]	0,25[a]
	30	12,00[a]	0,27[a]

[a] : les moyennes avec le même exposant dans une colonne ne sont pas significativement différentes (p > 0,05).

1. Tables:

- The caption must be 'self-sufficient', i.e. it must be sufficiently detailed so that the table can be fully understood without the use of text.

- The legend is placed above the table. Tables must be cited in the text (otherwise, they are useless) at least once.

1. Tables:

- Units of measurement must appear in the first row/column/legend and not in the body of the table.

Tableau 3 : Mesures anthropométriques des parturientes (n = 57)

Mesures anthropométriques	Moyenne ± ET	Valeurs extrêmes
Poids initial (kg)	71,44 ± 12,85	50 – 105
Poids en fin de gestation	82,39 ± 12,26	61 – 113
Taille (m)	1,65 ± 0,05	1,54 – 1,76
IMC (kg/ m^2)	25,94 ± 3,76	20,03 – 34,60

IMC : Indice de masse corporelle avant conception, **ET** : écart type.

2. Figures :

- A figure is a graphic element, which can have alphanumeric elements: drawing, photo, map, graph, etc.

- The legend is placed below the figure (unlike tables). As with tables, this legend must be 'self-sufficient'.

2. Figures :

- The figures are numbered in a single series (be they histograms, maps, photos or a plate), in Arabic numerals, indicating their order of appearance in the document.

- Like tables, figures must be cited in the text at least once.

2. Figures :

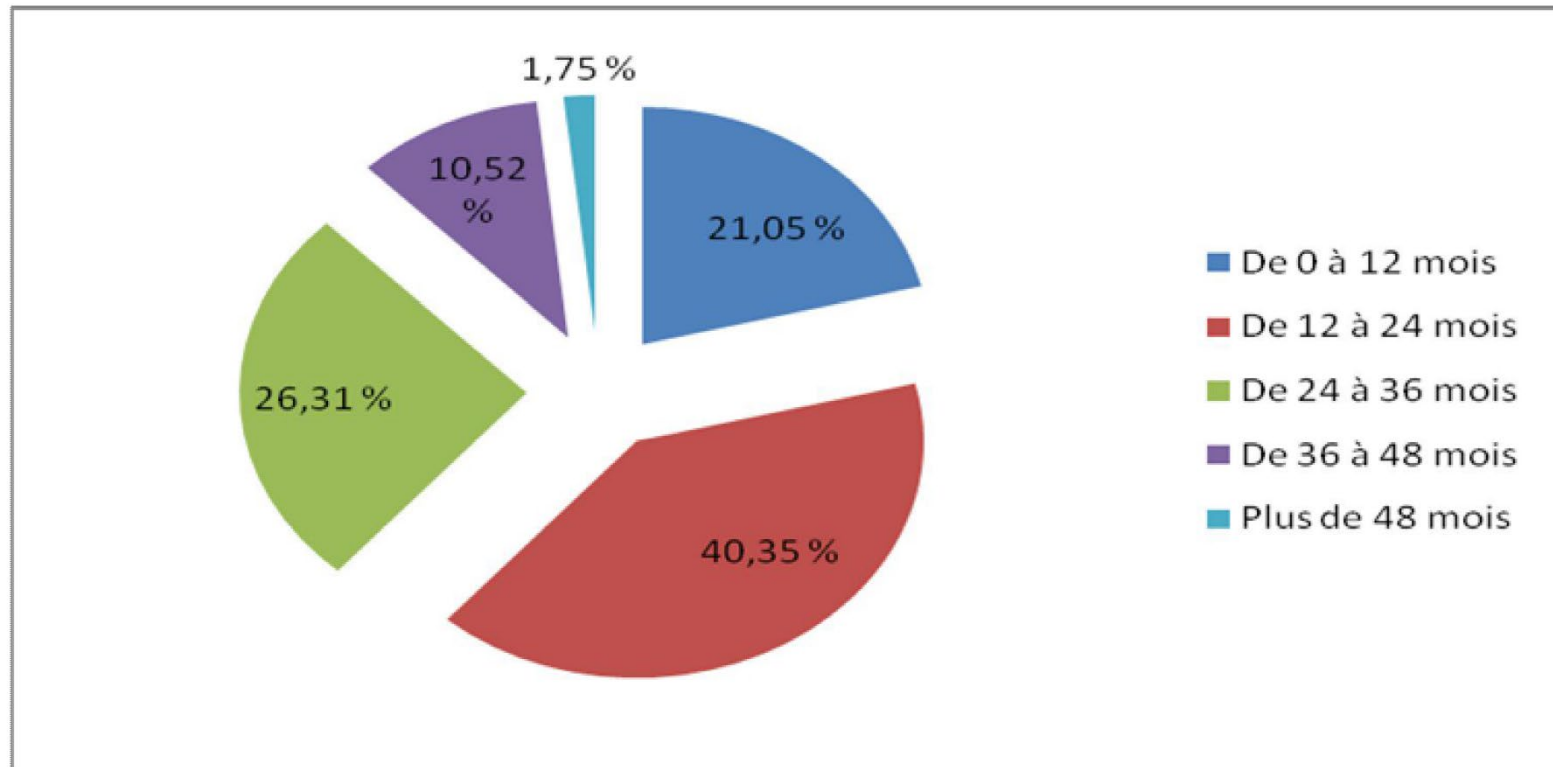# There are different types of figures:

Figure 10 : Répartition des sujets selon l'espace inter génésique (n = 57)

pie charts: presentation of percentages;

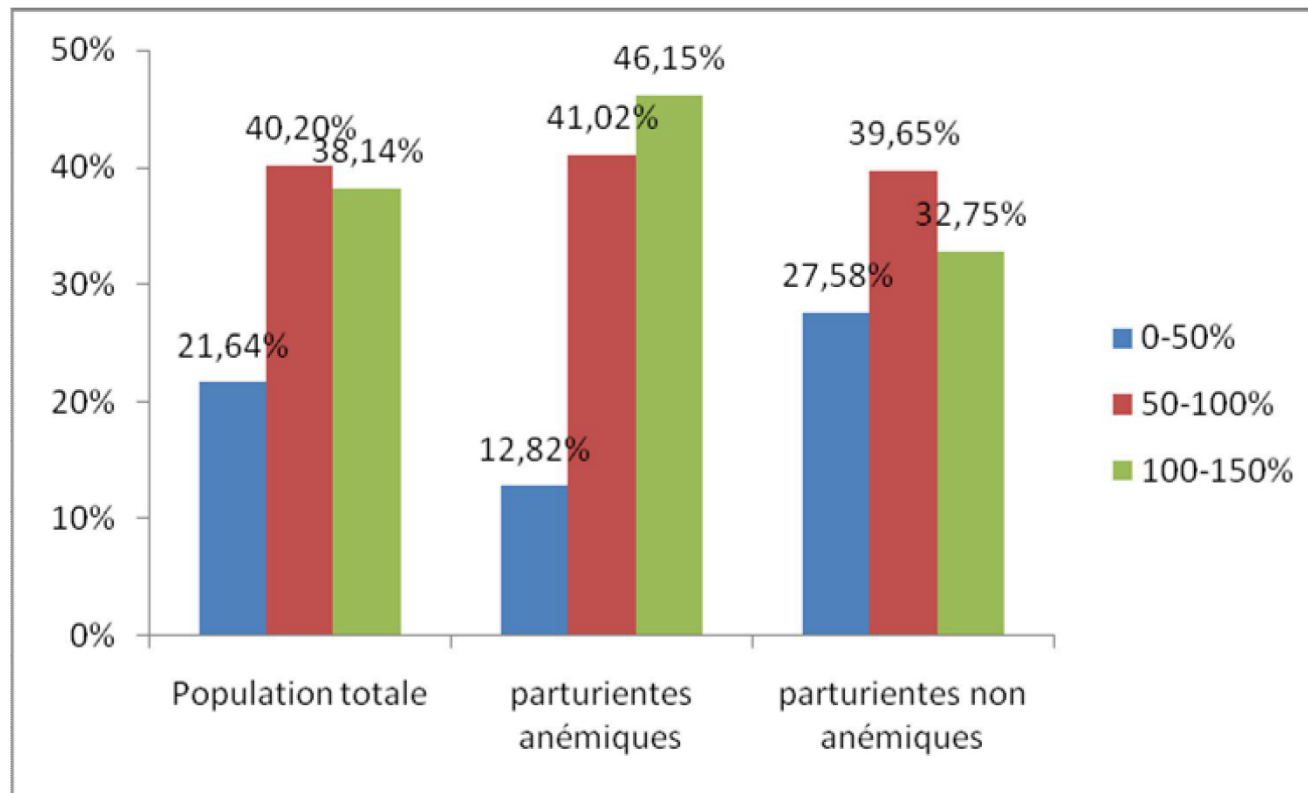# 2. Figures :

There are different types of figures:

Figure 11 : Distribution des parturientes selon leur niveau de couverture de besoins en fer

histograms: comparison of a variable;

2. Figures :

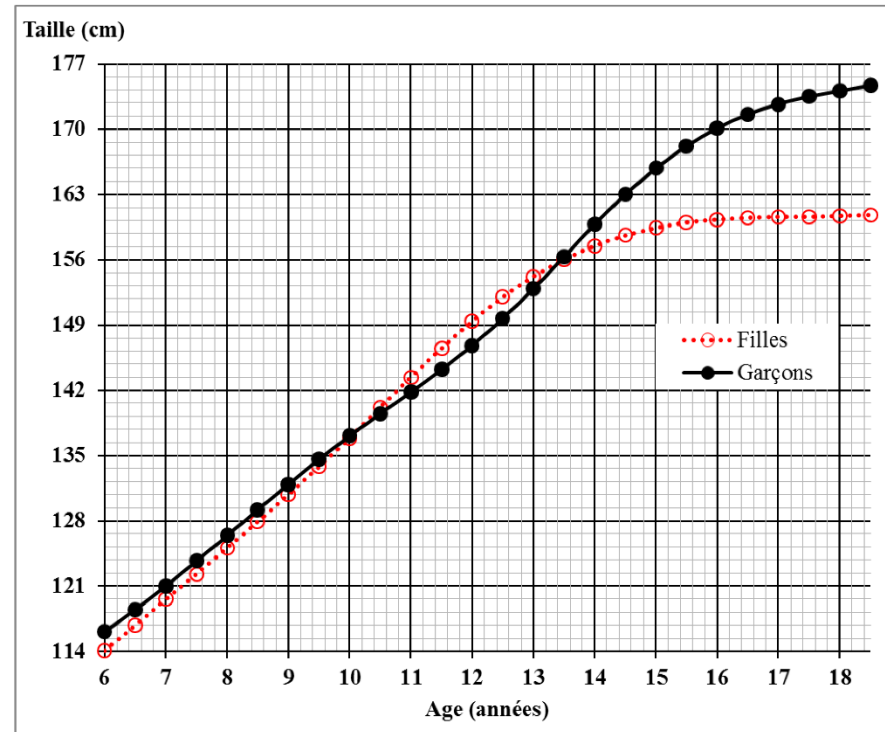# There are different types of figures:

Figure 34 : Courbes médianes de la taille (cm) des filles et des garçons (Constantine, 2009)

Plots of curves and points: x is the control variable (explanatory); y is the controlled variable (explained);
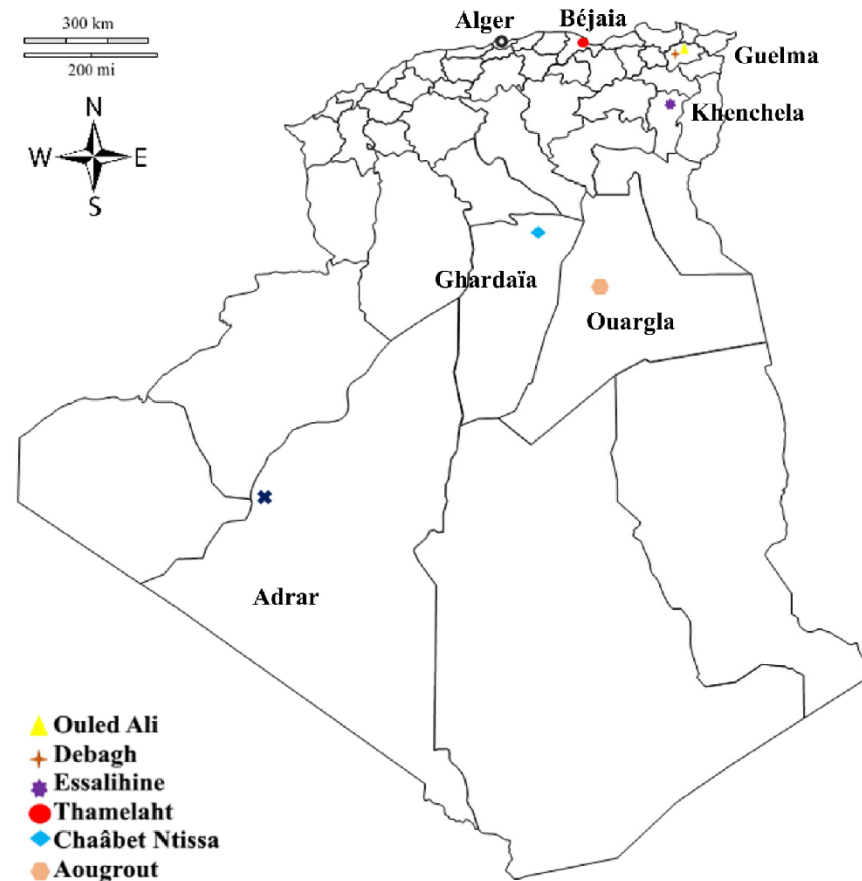
2. Figures :

There are different types of figures:

Figure 7. Carte montrant la répartition des sites étudiés.

Maps;

2. Figures :

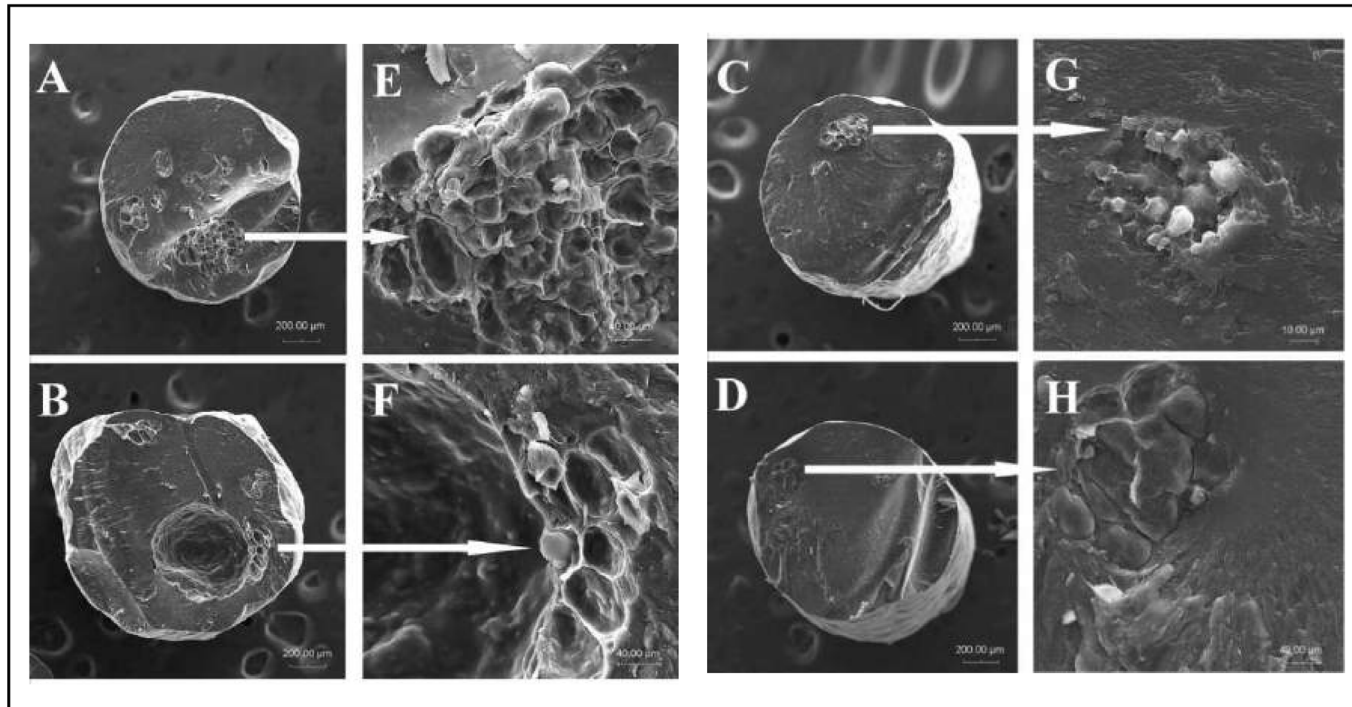# There are different types of figures:

Figure 26. Coupes transversales des pâtes sèches fabriquées à : une teneur en eau de 28%
à 60 tr/min (A, E) ; une teneur en eau de 28% à 100 tr/min (B, F) ; une teneur en eau de
30% à 80 tr/min (C, G) ; une teneur en eau de 32% à 100 tr/min (D, H), au grossissement
× 125 (A, B, C, et D) et × 600 (E, F, G, et H)

Photographs, etc.

3. Figures OR tables?

Figures and tables do not have the same role:

- Tables are made up of letters and numbers. They have the advantage of mathematical precision and allow comparisons to be made;

- The figures are a transcription of numerical data: drawings, lines, curves, diagrams, . . .

Figures OR tables?

Figures and tables do not have the same role:

- the figures are always accompanied by legends, the paintings sometimes have a title and sometimes a legend, but at least one of the two;

- The figure is more effective in describing a situation that evolves over time, or more generally in showing a difference between several states to the reader.

The choice between a figure or a table will depend on the objective.

TD5 Activity: Creating Figures and Tables:

Each student will have to complete the TD5 activities (in French or English) and then give his or her individual report in paper version (printed) to the teacher during the next session.