**English for Agricultural Science Students: Writing research articles in English**

**General Introduction**

This course assumes that the best way to learn to write research articles is to read them, and to pay attention to the kind of language that the researchers use to develop their arguments. In this way you will build up your own resource of the kind of English that is appropriate to your own field of research.

In order to be flexible, the course is largely delivered online, through moodle\*. In this course, there will be video presentations on the main sections of the medical research article: Title/Abstract, Introduction, Methods, Results and Discussion. The presentations invite you to read two medical research articles in detail. Though they are different from each other, they both illustrate conventional research article structure. You are encouraged to compare these articles to articles in your own specific field of research.

As you work through the course, you are asked to complete reading and writing activities that will encourage you to develop your own resources for reading and writing research in English. You are also asked to keep a learning blog, reflecting on your progress and difficulties as you navigate the course content.

Good luck!

**01 Developing academic literacies: Research article - title and abstract**

These activities focus on the title and abstract of a typical research article.

1. Read the title and abstract from an article in *Scientia Agricola* and answer the following questions
2. What is the relationship between the 2 parts of the **title**?
3. Identify the different moves in the **abstract**, (e.g.by using a different colour for **Situation, Present Research, Methods, Findings** and **Implications)**.

*ANIMAL-BASED AGRICULTURE, PHOSPHORUS MANAGEMENT AND WATER QUALITY IN BRAZIL: OPTIONS FOR THE FUTURE*

Eutrophication has become a major threat to water quality in the U.S., Europe, and Australasia. In most cases, freshwater eutrophication is accelerated by increased inputs of phosphorus (P), of which agricultural runoff is now a major contributor, due to intensification of crop and animal production systems since the early 1990s’. Once little information is available on the impacts of Brazilian agriculture in water quality, recent changes in crop and animal production systems in Brazil were evaluated in the context of probable implications of the fate of P in agriculture. Between 1993 and 2003, there was 33% increase in the number of housed animals (i.e., beef, dairy cows, swine, and poultry), most in the South Region (i.e., Paraná, Rio Grande do Sul, and Santa Catarina States), where 43 and 49% of Brazil’s swine and poultry production is located, respectively. Although grazing-based beef production is the major animal production system in Brazil, it is an extensive system, where manure is deposited over grazed pastures; confined swine and poultry are intensive systems, producing large amounts of manure in small areas, which can be considered a manageable resource. This discussion will focus on swine and poultry farming. Based on average swine (100 kg) and poultry weights (1.3 kg), daily manure production (4.90 and 0.055 kg per swine and poultry animal unit, respectively), and manure P content (40 and 24 g kg-1 for swine and poultry, respectively), an estimated 2.5 million tones of P in swine and poultry manure were produced in 2003. Mostly in the South and Southeast regions of Brazil (62%), which represent only 18% of the country’s land area. In the context of crop P requirements, there was 2.6 times more P produced in manure (1.08 million tones) than applied as fertilizer (0.42 million tonnes) in South Brazil in 2003. If it is assumed that fertilizer P use represents P added to meet crop needs and accounts for P sorbed by soil in unavailable forms each year, if swine and poultry manure were to replace fertilizer, there would be an annual P surplus of 0.66 million tonnes in the South region alone. These approximations and estimates highlight that, similarly to other parts of the world, there is a potential for surplus P to quickly accumulate in certain regions of Brazil. Unless measures are developed and implemented to utilize manure P, repeated annual surpluses will create an increasingly difficult problem to solve. These measures can be grouped as source and transport management. Source management attempts to decrease dietary P, use feed additives, manure treatment and composting, as well as careful management of the rate, timing, and method of manure applications. Transport management attempts to control the loss of P in runoff from soil to sensitive waters via use of conservation tillage, buffer or riparian zones, cover crops, and trapping ponds or wetlands. These measures are discussed in the contest of Brazil’s climate, topography, and land use, and how successful remediation programs may be implemented at farm and watershed level. Key words: diffuse pollution, eutrophication, poultry production, swine production, surface runoffFind a research article on a topic that interests you.

1. Look at the title. What does it contain?
   1. A description of the topic alone?
   2. Topic plus claim?
   3. Topic plus method?
   4. Topic plus goal?
   5. Anything else?
2. Read the abstract. Colour-code the moves.
   1. How many of the five moves can you find?
   2. Note down any useful language. Add any particularly useful vocabulary to **Your Vocabulary List** on moodle.
3. Think of a piece of research that you have been involved with.
   1. Write a suitable title for an article about it.
   2. Write a 5-move abstract for an article about it.
   3. Upload it on moodle.

\* Moodle

There is a moodle site for this course:

English for Agricultural Studies (Postgraduate) EAS-01

http://edisciplinas.usp.br/course/view.php?id=63864

You can self-enrol for this course using the password **ESALQ2018**