Move 1: Results

Approaching the Niche

The initial move in the Results section is called "Approaching the niche." Here the major aim is to show a valid progression to findings. The progression here carries a lot of meaning. It means that your findings are valid in that they have a logical connection to general information from the field. It means that they are connected with your methods and that your methods were valid. This is often done by reiterating relevant information to give a logical foreground to your results and coming back to the validity of your methods.

There are three steps that can be used to achieve the communicative goal of Move 1:

(1) Providing general information, and/or
(2) Restating study specifics, and/or
(3) Justifying study specifics.

Providing general orientation is thinking about how the results may be understood or confused by the reader, so authors reiterate information so that the reader does not get confused or does not have to go back to the introduction section to understand what's going on in the results section. In other words, you can use this step to situate the current study and/or results in the targeted knowledge space, provide a conceptual frame of reference for the reader, recognize those accepted methods, techniques, process or practices used in the field, and orient the reader by indicating the order of content in the following text or highlighting noteworthy features to follow.

Here are two examples of how you can accomplish this step:

• Example 1 (Agricultural and Biosystems Engineering):
Larvae of the southwestern corn borer (Diatraea grandiosella) or the corn earworm (Helicoverpa zea) are the two most common corn insect pests in the region (Betran and Isakeit, 2004).

• Example 2 (Community and Regional Planning):
At least some critics of the local CAMA planning program assert that one of the reasons for the program's problems stems from it being "consultant driven."

Restating study specifics is a very common strategy that authors use to restate various characteristics of their methodology, such as the overall approach, research questions, and/or hypotheses. The purpose of restating study specifics is to connect them to the respective results. Don't forget, the reader needs to be able to understand the results, and reminding the reader briefly of how those results were obtained can be a good strategy to accomplish this goal. sometimes this step is accomplished by pointing to visual representations of procedures or approaches (for example, graphs or tables). Consider the following examples:

• Example 3 (Agronomy):
The storage period of dry or wet tissue samples kept at -10 _C was investigated by assaying subsamples over time with both Spec 1 and Spec 2.

• Example 4 (Inorganic Chemistry):
The diameters of the ZnO NCs were calculated using absorption spectra wavelengths at the inflection point and a model based on tight-binding theory.

Justifying study specifics is the final strategy to providing a valid progression of results. You can provide justifications for study-related choices as a way of increasing the credibility of results. If you remember back to the Methods section, authors try to anticipate criticism with the purpose of making the methods credible. In the results section, criticism is also anticipated; thus, providing sound reasoning or rationale for certain study choices and reiterating the importance of certain study choices is like answering questions from your readers before they are asked (see Example 5 and 6).

Results

• Example 5 (Chemical Engineering):
This flow was chosen because it has a streamwise component, in the x-direction, that varies over the cross section but does not provide flow in the y- or z-directions.

• Example 6 (Horticulture):
Previous studies results showed that 25.0 __mu__M NAA was the lowest concentration among the three auxins tested that resulted in 100% rooting. Thus, 25.0 mu M NAA was selected as the most effective treatment and used in all further experiments.

Move 2: Results

Occupying the Niche

The next move in the Results section, "Occupying the niche," introduces new knowledge about the identified niche. This new knowledge represents information that was previously insufficient or lacking in the research area. Authors accomplish Move 2 by presenting the results of the current study in explicit and informative ways. Relevant supporting evidence for the current study's findings may also be presented. Results from the study may be presented in verbal form, as well as in graphical or pictorial form in charts, tables and/or diagrams that act as visual aids. Presenting the study's results in multiple formats may help readers understand the current study's findings in varied visual or spatial ways.

It is important to clarify that the current study's results are not commented on or discussed in Move 2. This discussion occurs either later in the Results section (if Results and Discussion sections are combined) or in the Discussion section of the RA.

There are two steps that can be used to achieve the communicative goal of Move 2:

(1) Reporting specific results and/or
(2) Indicating alternative presentation of results.

Reporting specific results is a step that is used to introduce the specific quantitative and/or qualitative results as they address the original goals, research questions and/or hypotheses of the current study. You can report specific results in narrative form or in numerical form, and the findings may be presented concisely or extensively. Sometimes notations about statistical significance, observations, relationships or differences between variables, effects of variable manipulation, time-related changes or examples from the data are given.

Here are two examples of how you can accomplish this step:

• Example 1 (Organic Chemistry):
The emission spectra of the ZnO NCs displayed the characteristic green emission (?max ~520 nm).

• Example 2 (Agronomy):
Concurrently, a significant increase in crop phytotoxicity was observed for both glyphosate-susceptible maize and soybean plants at 72 and 192 HAT.

Indicating alternative presentation of results points to and/or summarizes the results. This step is sometimes accomplished with metatextual pointers (e.g. tables and figures) which present the study's findings in alternative ways. You refer to the visuals to help the reader see complex results in a more comprehensible form and to facilitate understanding of the results presented in their alternative form. Consider the following examples:

• Example 3 (Plant Pathology):
Similarly, Figure 5B represents the log10 of the ratio between the gene expression levels at T2idl, T4idl, or T6idl and the expression of the genes at T0idl.

• Example 4 (Agricultural and Bio-Systems Engineering):
Figure 3 illustrates the Hybrid tom and hen turkey growth performance during the one-year monitoring period.

Move 3: Results

Construing the Niche

The next move in the Results section is called "Construing the niche." The main aim of Move 3 is to comment on and frame the results of the current study. This commentary on the results helps to explain the findings and develop a reader's understanding of how the findings relate to the other literature in the discipline. You would typically use this move after a report of findings because it is a prime opportunity to evaluate how the presented results fit in the pre-existing literature. In other word, authors do not simply report the results in this move, but also make attempts to understand them in relation to what has occurred in the study and what has been reported in other relevant studies in the discipline. To sum up, "Construing the niche" allows authors to explain and interpret the reported results.

It must be noted that Move 3 may or may not appear in the Results section of the RA. In the case that an RA is organized with the Results and Discussion sections combined, it is probably that Move 3 will be included. However, if the Results section and Discussion section are separate, the author may discuss the results in later sections of the RA, meaning Move 3 may not be present in the Results section.

There are five steps that can be used to achieve the communicative goal of Move 3:

(1) Comparing results with literature review, and/or
(2) Accounting for results, and/or
(3) Explicating results, and/or
(4) Relating to expectations, and/or
(5) Acknowledging limitations.

Comparing results with literature review is a step where authors compare the results of their current study with reported findings, theoretical beliefs and/or previously stated assumptions or predictions in their discipline. This is done to highlight similarities and/or differences between inter-study results (i.e., between current research findings and previous research findings), support explanations and/or claims with what is known from previous research, show how the results relate to the body of existing knowledge on the topic of current research, and strengthen credibility of current findings.

Here are two examples of how you can accomplish this step:
• Example 1 (Geological and Atmospheric Sciences):
These observations are consistent with previous researchers' findings that bond order is independent of the d18O of water and the d13C of dissolved inorganic carbon (Schauble et al., 2006). 10.

• Example 2 (Mechanical Engineering):
The short action time of 0.4 s estimated based on the micro-PIV measurements was found to agree well with the value reported by Demuren et al. (2009). 10.

Accounting for results reflects on the nature of the currents study's results to point out what may have caused the current study's results or outcomes, suggest reasons for, hypotheses, speculations and/or assumptions that may account for certain findings, and justify the basis of the results. This step can be completed with or without referencing previous research. Consider the following examples:

• Example 3 (Agricultural and Bio-Systems Engineering):
The discrepancy of the downtime NH3 ER (0.14 vs. 0.88 g d-1 bird-1) may have been a result of differences in litter source (rye hull vs. shavings) and clean-out practices, such as the extent of caked litter removal, tilling, and rebedding.

• Example 4 (Plant Pathology):

Thus, it is likely that the in vivo visualization of the polymerized MTs was unbiased, despite the construct being driven by a strong promoter. 10.

Explicating results is another step in Results that helps to explain the reported results in the context of the study. This is done through interpreting, inferencing, and possibly drawing on literature in order to give meaning to the results, making immediate deductions from the results, providing logical interpretations, and preparing for further discussion of the results outside the context of the current study (see Example 5 and 6).

• Example 5 (Business):
Indeed, this finding suggests that strength of ties, per se makes little difference, at least in our context, in the extent to which bridging promotes individual innovativeness. 10.

• Example 6 (Microbiology):
These results indicated that SsoPox immobilized on nanoalumina membranes can indeed attenuate the production of P. aeruginosa quorum- sensing-associated virulence factors.

Relating to expectations is used to reason about the anticipated or unanticipated research findings and/or observations. This step is typical when you want to point out expected or unexpected results, express attitudes about findings (often with regards to surprising or unsatisfactory results), or connect the findings to original hypotheses, possibly stating whether or not they are confirmed or supported.

The following are examples of how you can realize this step:

• Example 7 (Sociology):
One of the most striking findings is that all participants spent some time on both kinds of problems (i.e., there were neither floor nor ceiling effects), and there was considerable variability in time spent on both types of problems.

• Example 8 (Organic Chemistry):
Perhaps the most intriguing finding of our single-crystal X-ray analyses comes from the location of the protons in compound.

Acknowledging limitations is important in any study in order to justify what went wrong in the study, avoid over-generalizations about the study's findings, anticipate potential criticism from other scholars in their field, and possibly transition to recommendations for future research, as shown in Examples 9 and 10.

• Example 9 (Bioinformatics and Computational Biology):
It was not possible, however, to conclude from the derived s-value what the molar mass of this species is due to uncertainties of hydrodynamic shape and because the reaction boundary of a rapidly interacting system always sediments slower than the sedimentation coefficient of the complex species. 10.

• Example 10 (Agricultural and Bio-Systems Engineering):
Due to the unexpected low bird number (an inadvertent error during bird transfer from the brooder barn to the grower barn) and considerable bird number changes of flock 1 at the tom site, data for one entire investigated flock had to be excluded from the ER assessment, as they were not representative of natural flocking patterns.