

Journal Writing in the Science Classroom

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“A journal can include work which students have completed during lessons, reflections about what they have learnt, their feelings about it and any questions which have been left unanswered”

Writing is usually associated with learning a language or an arts subject and it is not given much importance in science. It is simply used as a tool for the dictation or copying of notes. However as stated by Trombulak & Sheldon (1989) writing is a valuable skill in all disciplines and it will enhance learning in any discipline. One way in which students can be encouraged to write is by keeping a journal or a learning log. This can be used instead of the usual notes copy-book or in conjunction with the normal copybooks kept by students. It can include work which they have completed during their science lessons, reflections about what they have learnt, their feelings about what they have been learning and any questions which have been left unanswered. This reflective writing can improve students' comprehension, analytical skills and ability to formulate hypotheses (Strauss & Fulwiler, 1987) and also influence students' attitudes about the subject (Trombulak & Sheldon, 1989). In my view journal writing is important because:

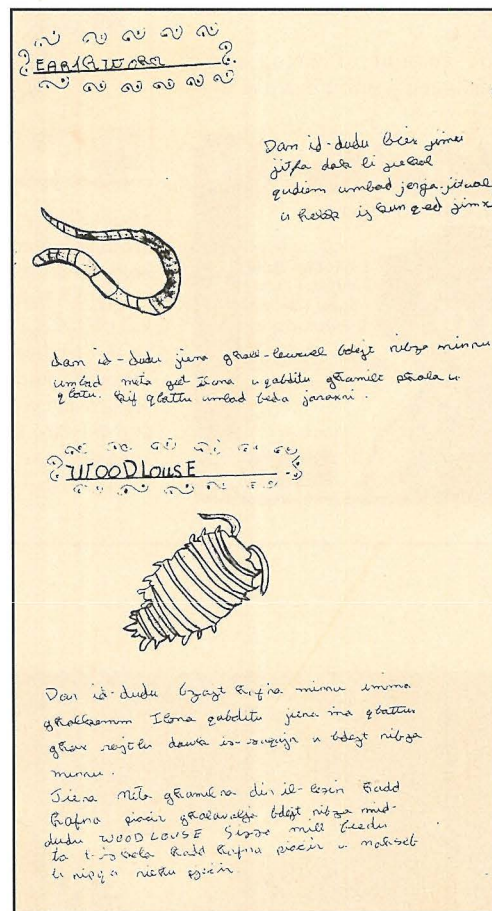
1. It allows students to express themselves in their own words about things which they have learnt;
2. It creates a dialogue between teachers and students providing feedback to both students and teachers;
3. It helps to improve students' self-confidence and self-esteem and creates a positive attitude towards science.

Journals can be used to write about things learnt:

The journal can be used by students to describe what they have learnt in the science classroom. The journal helps the student to jot down what they have learnt, to ask particular questions which still remain unanswered, to comment about things which they have not understood well and to outline areas which they feel require further explanation. This is done in the students' own words so that the students can relate to it much more than dictated notes.

The students can also use the journal to express their feelings about what is taking place during the science lesson. For example one student drew and described the earthworm and wood louse (as shown) but she did not stop at simple description. She also describes her

emotions and feelings when confronted with the earthworm and wood louse. This enables students to think not only of what they are doing on an academic level, but also on a personal level. This will prepare students to relate science to values at a later stage.



Insert one

As a means of feedback to students and to the teacher:

The journal also enables students to ask questions and obtain feedback in an informal manner without having to expose their lack of understanding in front of fellow students. It is a very effective way of giving positive feedback to students. It can be used to give qualitative descriptive feedback to students so that they are encouraged to work well. The journal can in fact be used to build up self-confidence and self-esteem in the students. The journals can



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also provide feedback to the teacher about the teaching and learning taking place. Students can be asked to write what they liked or did not like about the lesson. For example as shown below, one student describes her enjoyment and appreciation of the science lesson.



Improving self-confidence and self-esteem:

In my view, one of the most positive aspects of journal writing is that it encourages students to express themselves, it enables them to recognise that their views are valued and valid and that through the feedback which they are receiving they can improve their learning and give their very best. This helps them to realise that they are capable of learning and achieving and helps them to work even harder. As one student pointed out "...I like science very much...I always go home and show my book to my mother..." and in the words of another student, "...I did very well in the test...

really good for me and I would like to thank you for your teaching...I have started to enjoy the writing which we do and I even understand something...I have started to enjoy physics...it's not a joke any more..."

The most exciting aspect of journal writing in science is that it can help students and teachers in so many ways. It is not just learning to write or just learning science. It is a means of communication, a means of dialogue, a way which encourages students to work at their own pace and at their own level and at the same time through continuous feedback guides them to bring out their best potential. It is also something which students can keep even after they have left school as a record of what they had learnt and were capable of doing in science.

References:

- Strauss, M.J., & Fulwiler, T. (1987). Interactive writing and learning chemistry. *Journal of College Science Teaching* (February 1987), 256-262.
- Trombulak, S., & Sheldon, S. (1989). The real value of writing to learning in Biology. *Journal of College Science Teaching* (May 1989), 384-386.

Jiana študi pacis šofna meta ledjina
 nagladiš l. eksperimenti ghor is-xeng
 instalka šofna, meta ledjina nagladiš
 l. eksperimenti u ledjina instalku il-
 kuluri videt ma-šielot jiana
 študi pacis šofna šien k'ont šofna
 scitata ghor dan k'ien l. euwel
 eksperiment l. gharilt f'haite

Insert two

The journal also helps to establish a continuous dialogue between the teacher and the student. Giving feedback to the students is time consuming and involves commitment on the teacher's part. However the relationship which can be built between the teacher and the student through the journal writings is rewarding and profitable for both the student as well as the teacher.

Insert three

Conclusion Ujiz

Miss Debbie I would like to
 inform you that I enjoy your Physics lessons
 but please tell me when you are free and
 I am free so I could understand those
 lessons that I was absent. If I was free
 I could of understood more the questions
 and I could of gotten some more marks
 I am very pleased that you are helping me
 I am understanding very well the lesson.
 I am confused what to do when I grow
 up I need money for my self to dress and
 ecc some tell me keep studying but I
 don't know what I'm going to do. So
 please help me. I am in very need of
 help.