

Graphic organisers and writing performance: Improving undergraduate competence using action research in a workplace internship

KYLIE EMERSON

University of New England, Australia

And

T. W. MAXWELL¹

University of New England, Australia

This paper briefly sets out the rationale for the use of action research as a culminating assessment task in an undergraduate ten week internship. Graphic organisers² can be effective tools for enhancing thinking and promoting meaningful student learning. But can they be used effectively in an early childhood classroom and by a teacher intern? The major part of the paper is devoted to a report of a classroom-based action research project. The results provided evidence for improved outcomes in early childhood students' writing performance and undergraduate teaching competence.

Keywords: graphic organisers, children's writing, action research, internship

Introduction

Action research (AR) is a systematic and intentional inquiry into one's own practice where the inquiry is underpinned by evidence (cf Dinkelman 2003). Since 1999, each fourth year student at the University of New England in the Bachelor of Education (Primary) course is required to engage in a ten week internship in the final semester of their degree. Reflection over the last decade on the unit in which this assessment task is placed has led to its development (see for example, Maxwell et al., 2001; Maxwell et al., 2003; Bloomfield et al., 2004; Maxwell, 2011). The key process is action research. The predominant aim is to complement interns' professional experience with a strong focus on building overall professional knowledge and skills. Critical to this process is the understanding development

¹Corresponding author. Email: tmaxwell47@gmail.com

²Graphic organisers are a visual means to help children classify ideas and communicate more effectively.

and knowledge production that comes from learning from the workplace, ie, coming to terms with the particularities and generalities of a particular school site and classroom in a project of the intern's choice. A demanding task for many, the AR project culminates in a report submitted for assessment and as such it is an authentic capstone assessment task in a professional award (Maxwell, 2011). The AR project not only models a role in real life, it provides a process that can be applied in the future.

The purpose of this article is to present a report of one project as a case study of classroom-based action research (Kemmis & McTaggart, 2000). The project proceeded through a logic that demanded that the action research be situated in the realities of the undergrad's own work. That is, it depended upon a thorough reconnaissance (Maxwell, 2003; Grundy, 1995) which resulted in Kylie's research on graphic organisers to assist children's writing³. Her work based learning was central to her becoming a teacher. The structure of the systematic AR strategy provided the basis for her clear understanding of the purpose of the final assessment task in her award (cf McClanahan, 2008: 105). In action research, so that the learning is connected with the workplace, a reconnaissance is usually undertaken first.

Reconnaissance

'Reconnaissance' is used to identify the point of strategic action leading to the identification of an action research question. Maxwell (2003) scaffolded the reconnaissance for interns by identifying three components: the situation analysis (where the workplace and influences on it are identified), action researcher competence analysis (a directed and context bound self-study) and identification of relevant 'literature' (which provides conceptual understanding and ideas for action).

Situation analysis

The work site was a historic smaller town situated along the Fossickers Way tourist route in NSW, Australia. The community was very supportive of the school's endeavours. The school had approximately 170 students ranging from Kindergarten (age 5) through to Year 6

³Kylie was a final year student in the BEd(Prim) and Tom was her university supervisor.

(age 12). All classes except Kindergarten were stage composite classes⁴. The small staff was very committed. Professional development and student learning were major foci for them. Collaboration amongst the staff members allowed involvement of more people in the action research 'team' associated with Kylie's work as the collaborative links already existed within the school.

In the multi-grade Grade 1/2 (ages 6-7 years) class there were 11 Year 1 students (four female and seven male) and 10 Year 2 students (six female and four male). All were from Anglo Saxon backgrounds. The Year 1 students ranged in ability from those who were very independent workers (Jack and Tess⁵) through to those who needed revision of a large percentage of Kindergarten concepts (Adam, Ben, Tom). Adam and Ben participate in the Reading Recovery Program (NSW DET, 2010) to catch up on their reading skills. The Year 2 students were all quite capable and independent. Students here needing extension activities included Julie (Maths), Kay (English), Rowen (English/Maths), Jenny (English/Maths). Jarred had achondroplasia, a disorder of bone growth leading to dwarfism. Specific modifications had been made to the classroom, its equipment and to the toilet block, canteen and computer room to accommodate his needs. The children were very good with Jarred. The class was organised into mixed ability table groups. An individual reward system had been implemented. Students had a merit ticket book, in which they received tickets for good homework, appropriate uniform and general outstanding behaviour/work. A code of cooperation was established. Behaviour problems were dealt with under the school-wide discipline policy. Homework was handed out each Monday and due on Friday. It was a direct extension from the activities completed in class, a feature important for this project. It often included a revision sheet based on English (comprehension and reading) or maths activities. The children also had a spelling sheet with simple spelling activities. A home reading program was also developed using a home reading diary. The students were capable of changing their home readers with minimal assistance.

⁴'Stage composite' means more than one age group in the one classroom but containing students within the one developmental stage (NSW) ie, Years 1-2, 3-4 or 5-6.

⁵ Names have been changed.

The classroom was well resourced with a SmartBoard, a laptop and a pod of four new computers. There was a wide variety of both fiction and non-fiction books for interest or quiet reading times. Furthermore, there were a variety of concrete materials for the students to draw upon in activities such as exploring mathematics concepts. There was a variety of relevant teaching aids on the walls as well as many educational games and puzzles. The classroom was very large which allows for ease of movement (especially for Jarred).

The school's main initiative for the year was the integration of technology and higher order thinking skills into everyday classroom practice. Each student maintained a digital portfolio. Students and staff developed a digital yearbook. Each year students were taught a new software package. They participated in the 'Active After School' program which was a Federal Government initiative designed to improve gross motor skills and participation in sporting activities.

Clearly this school provided Kylie with an ideal opportunity to develop her teaching especially as it was a multi-grade classroom. Kylie consistently reflected upon her teaching practices throughout the internship but especially during the first two weeks. In that time an area of concern emerged. It became evident to her that the teaching and instruction in writing were unsatisfactory as the students were not performing well.

Kylie gathered baseline data on student writing. The analysis of student work was revealing. Results from the students' guided writing and independent writing tasks^{6*} as well as her observations* of the students and their interactions with her revealed that she needed to develop her own knowledge and abilities on teaching students how to write text types for early learners. Since her work was central her own competence had to be explored.

Intern competence

This was Kylie's first teaching experience in an early childhood classroom. During Kylie's ten week internship her focus was not on behaviour management but upon curriculum issues. The students were taught using the normal classroom teacher's program developed

^{6*} means available from the corresponding author.

collaboratively by both Year 1/2 teachers. Kylie followed the pattern of her mentor teacher and maintained the usual classroom rules and reward systems. However, she did integrate an additional points reward system designed to get students to display more on task work habits.

In specific terms, she had to employ a new strategy to teach writing. Strategies employed from previous experience of teaching writing were not sufficient, nor effective enough she believed. It became her objective to find the most effective way to support the children in their writing. In this regard the literature she found on early children's writing assisted greatly.

'Literature'

Maxwell (2003: 7) explains that 'knowledge can be found in texts, but also from the experiences of, particularly, admired practitioners'. The literature allows action researchers to consider ways in which to improve the situation or 'problem' from an informed position (Macintyre, 2000:3-4, 16). Specifically the analysis of the literature can identify new practices. The literature can also assist with conceptualising the problem or task. Talking to teachers in the school about developing early learners' writing also proved to be useful to Kylie.

Kylie learned the four key principles of writing as outlined by Harris et al. (2003:20):

- 1) Effective writers do a lot of rehearsing (thinking, talking, researching) about what they will write;
- 2) Effective writers use certain strategies to help them write their thoughts and ideas;
- 3) Effective writers draw heavily on their semantic (background) knowledge as well as their syntactic knowledge and their graphophonic knowledge simultaneously; and
- 4) Effective writers are typically confident enough to write for a variety of purposes and audiences.

These four principles prompted Kylie to think more closely about the first two principles of 'rehearsing' and the use of strategies to support the writing of thoughts and ideas as this applies to early learners. She had attended the school's teacher development day on graphic organisers which were related to these two principles. However, none of the information provided on that day was concerned with using graphic organisers in relation to writing and certainly not developing writing of very young children.

Graphic organisers

are highly effective thinking tools that illustrate the organisation or structure of and relationships between concepts. Graphic organisers provide opportunities to track thinking and clarify both the content and the thinking processes used when creating, problem-solving or evaluating (VCAA, 2011).

Many studies have examined the benefits of using graphic organisers in teaching/learning contexts. Most studies have been concerned with reading comprehension and/or vocabulary knowledge. For example, the National Reading Panel (2000) reported that the use of graphic organisers was one of seven effective ways of improving reading comprehension, and Gardill and Jitendra (1999) reported improved comprehension on diverse test measures following use of graphic organisers. Further, Trabasse and Bouchard (2002:176) found that, 'teaching readers to use systematic, visual graphs in order to organise ideas benefited readers in remembering what they read and improved reading comprehension in Social Studies and Science.' This was useful as reading and writing are related but what of their use in developing writing specifically?

Reports on using graphic organisers were found regarding vocabulary development (Brookbank et al., 1999) and critical thinking skills (DeWispelaere&Kossack, 1996). Other reports on (1) how the use of graphic organisers improves retention and recall (Ritchie &Volkl, 2000), (2) selecting and organising information and comprehending content area information (Armbruster et al., 1991), (3) the development of meta-cognitive skills such as the ability to recognise and utilise top level structures (Robinson et al., 2006) and (4) with respect to the transfer of graphic organisers skills to new contexts (Griffin &Tulbert, 1995) were also useful. More significantly, research was found on the uses and benefits of organising ideas before writing (Meyer, 1995) and the effects of graphic organisers as a part of the writing process (Gallick-Jackson, 1997).The practicality of graphic organisers as tools to organise information and ideas, represent abstract ideas in concrete ways, show how concepts and facts are related, connect new knowledge to old, and organise thoughts for, writing and assess personal understanding were all identified by McTighe (1992).These were encouraging, especially as Gallick-Jackson (1997) and Meyer (1995) examined the effects of graphic organisers as a part of the writing process. Their two quasi-experimental science-

based research studies were conducted with second grade and third grade students (Gallick-Jackson, 1997; Meyer, 1995) but not with students as young as Kylie's.

Caviglioli et al. (2002:99) state that 'writing is difficult'. The difficulties and fears children have stem from not knowing what to write and this is likely the case for young writers. They go on to say that graphic organisers (or Visual Tools as they refer to them) make planning explicit, easy and empowering. They said that through the use of graphic organisers, students can model the planning that excellent writers 'do in their heads' (Caviglioli et al., 2002:99). Caviglioli et al.(2002:99) explain how planning in a linear fashion is too difficult for most people, not just children, and that the 'schematic nature of graphic organisers matches the way the brain naturally works'. They also revealed how graphic organisers challenge students to structure and organise their writing in a way that fits its purpose. Graphic organisers also 'direct students attention towards the writing itself' and they 'demand an active engagement with the whole writing process' (Caviglioli et al., 2002:100). Significantly, Caviglioli et al.(2002:100) state that children feel reassured by the structure graphic organisers offer them (Caviglioli et al., 2002:100). Graphic organisers, then, could assist Kylie's class particularly if attention was given to using simpler forms of graphic organisers.

By, and perhaps because of, using simpler forms of graphic organisers the children may focus more attention on the structure of the writing to the detriment of the creative process that is required in producing the text itself. Balance between the creative and the structuring processes is required. Similarly, prolonged use of a particular graphic form could lead children to think that the one format fits all genres. Awareness of such issues means the teacher can take care not to fall into these traps and use can be made of many forms (see, for example, <http://www.croydonsc.vic.edu.au/foundation2/Think/GrOrganisers/GO1.htm>).

In summary, McTighe (1992) goes so far as to say that graphic organisers have proven to be effective tools for enhancing thinking and promoting meaningful learning. It was further maintained by McTighe (1992: 1-28) that this is achieved in a number of ways including, organising information and ideas, generating and elaborating on ideas, representing abstract concepts in more concrete ways, illustrating relationships between concepts, relating new information to previous knowledge, storing and retrieving information, and

assessing thinking and learning. What's more, he concluded that graphic organisers could be viewed as practical tools that assist students in organising information and ideas. This was what Kylie needed and they could be made appropriate for her class. 'Clear writing comes from clear thinking' and graphic organisers are an effective way for students to achieve 'clear thinking' when writing (Andrews 1996, quoted in Caviglioli et al., 2002:102).

Action research question

After close examination of the reconnaissance with her supervising/colleague teacher, Kylie identified a shared concern which was manifested out of observations of students, their work samples, as well as lesson evaluations. Kylie needed to develop her knowledge and abilities in teaching writing to early learners and also acquire tools and strategies that would assist her in this endeavour. Most importantly, the literature allowed her to clarify goals and determine what to achieve. Reconnaissance, particularly the literature, allowed Kylie to narrow down her ideas to develop an action research question that was specific, strategic and do-able (Maxwell, 2003:9) as well as being improvement oriented. This led to a really interesting, innovative and significant area from which to base her action research via the question:

If I instruct a mixed ability group of Year 1 students⁷ on how to use graphic organisers to plan for their writing experiences, to what extent will this improve their writing performance?

Planning: actions

Caviglioli et al. (2002:50-53) assert that the explicit teaching of specific graphic organisers is essential to provide learners with opportunities to rehearse and explain their understandings of the nature, application and benefits of graphic organisers. Consequently, 1/2K students were explicitly taught how to use graphic organisers to plan for their writing experiences. Following the Harris et al. (2003: 20) advice about rehearsing, a graphic organiser for each writing task was, first, teacher-modelled followed by teacher and students (guided) work and finally students working independently.

⁷The report included only Year 1 students though the whole class was involved.

Conditions most relevant to writing development were also part of the planning (Cambourne, 1988, in Harris et al., 2003:5-6):

- Immersion- providing a classroom environment filled with diverse texts and literacy practices;
- Demonstration- explicitly modelling writing processes, and texts in terms of their genres, purposes, organisation and language features;
- Engagement- nurturing children's commitment to the writing task at hand, through ensuring its relevance, explaining its goals, and showing how it relates to previous and ensuing learning episodes;
- Expectations- conveying clear expectations to children, about their roles and responsibilities, and their success in the task at hand;
- Approximation- accepting children's writing attempts, even if not accurate, as part of a risk-taking process of 'having a go', while also guiding children's approximations in becoming more conventional; and
- Response- providing clear and ongoing feedback to children about their writing.

With these conditions in mind, the students were exposed to texts in their classroom environment, such as having their book stand to access for interest or quiet reading times, participating in shared reading and guided reading (text type focus) and having students changing their home readers daily. In addition, students were engaged in a variety of literacy practices that allowed them to practice the specific skills and text conventions needed for their writing tasks. There were multiple actions that Kylie had to learn and put together in order to achieve what she wanted.

Now students' planning of their writing included graphic organisers. These were then employed during their writing experiences. For modelled and guided writing the use of the classroom's interactive SmartBoard was used to develop texts using the Writing Fun page on the *Rainforest Maths* website for clearer instruction, student engagement and student participation.

All of these strategies were accompanied by Kylie's routines of endorsing 'having a go' in the classroom and encouraging risk taking in the students' writing. Moreover, all students' attempts at writing were 'celebrated' (eg praise and encouragement, stickers and stamps, merit tickets) and the students' strengths highlighted and recognised during individual writing conferences. During this time clear feedback was given to students about their writing performance and goals.

Planning: data

Macintyre (2000:5) states that 'different data gathering methods must be planned ahead of the first action and ideally administered by different people, so that the findings may be compared'. Through the use of 'triangulation' and allowing others to offer their perspective and analysis of data, Kylie used a variety of data collection methods to enhance the research findings (Cohen et al., 2000:233).

The following data were collected:

- Student Work Samples (Harris et al., 2003:222): The students' independent writing work samples were collected in weeks three, six and nine. Two teachers independently assessed the students' writing work samples to determine their performance;
- Student Capacity Matrix: This is a charting technique used to break down topic areas into steps for achieving a specific result and essentially is a self-assessment tool completed in weeks three, six and nine on each of their writing work samples;
- Journal: Kylie's own record throughout the course of the research was a third source of data ;
- Supervising Teacher Lesson Evaluations: These written evaluations were completed on lessons that Kylie conducted on writing; and
- Student Survey: These simple surveys were completed by the students in the final stages of the research. The surveys were concerned with the students' opinions and self evaluations relating to their 'favourite' work sample, their performance in the writing task and about what they have learnt as a result of participating in the action research project.

Furthermore, following Maxwell (2003:11) Kylie collected data over the whole internship: baseline data at the start (week 3), data in the middle (week 6) and data at the end of the cycle (week 9) to produce trends. Collecting data over time allowed Kylie to modify strategies as needed. A stratified sample⁸ of six students was identified before the project by Kylie's supervising colleague as representatives of the class*. For each level of high,

⁸ A sample was required in order to manage the comprehensive data gathering strategies over time.

moderately and low writing achievement two students (one male, one female) were identified.

Action

Kylie's reconnaissance, formulation of an action research question and planning (actions and data gathering) were all completed in the two-week supervised practicum. The implementation of the plan took place daily in the students' morning session, from 9.30-11.00, during the students' shared reading and writing timetable. It commenced at the beginning of week three and completed in week ten. There were six out of a possible 40 days that students were unable to participate for various reasons including an excursion, school visitors and a mixture of school activities. However, all planned activities were carried out despite these changes to timetabling as they were 'made up' in other sessions. Kylie believed it was imperative to maintain time spent on literacy.

Observations and reflection

The data gathered over time provide evidence of Kylie's learning. The results from each of the data gathering strategies will be considered in turn. First, on three separate occasions, two Stage 1 teachers assessed the students' performance based on writing samples* using an assessment rubric* they themselves developed. From these assessments both teachers found that all of the students' performances in writing had improved over the eight weeks. Moreover, they attributed these results to the inclusion of graphic organisers as a planning tool upon which the children were able to draw prior to undertaking their writing tasks. One teacher said in the Week 9 Assessment Recording Sheet*: 'From reflecting on all three description writing assessments it has become evident that the use of GOs [Graphic Organisers] has been beneficial for the students and clearly has improved their writing.' The teachers also made the following comments about the changes that they observed in the students' writing and the areas in which the children made overall improvements.

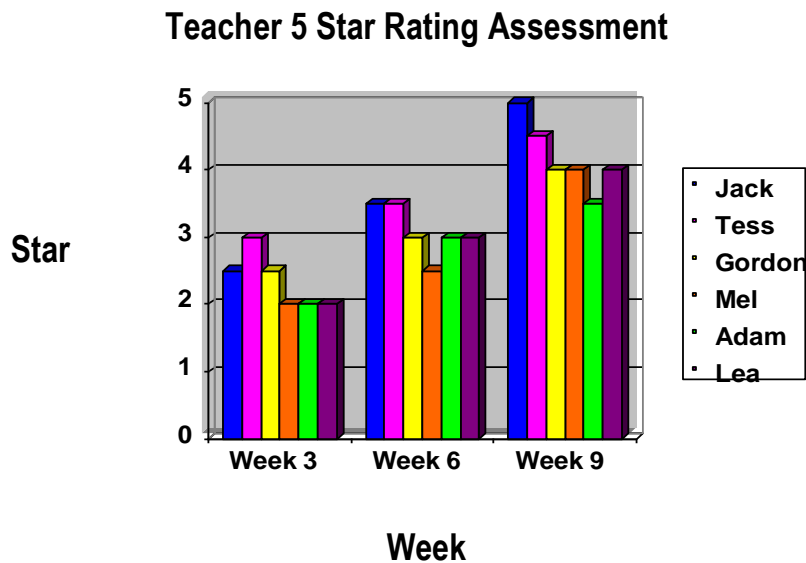
The quantity and quality of all students writing in this task is of a very pleasing standard.

The students included all details required for writing a description and moved beyond simply making statements.

All students now have a solid understanding of how to use paragraphs as evident in their writing.

Kylie independently assessed the students' writing based upon a five star rating scale. Figure 1 depicts these assessments. These data support the improvement in quality of the students' writing over time identified by the two colleagues.

Figure 1: Teacher Assessment of writing tasks over time for six students



Secondly, the surveys* asked each student to identify their 'favourite' description work sample (choice of *Stitch* (week 3), *Puss in Boots* (week 6) and *Nemo* (week 9)). All of the students identified their *Nemo* description work sample as their 'favourite' work sample. The students' rationales for choosing *Nemo* included the following:

I tried a lot harder than my other writing tasks. I strived for accuracy and it was really good and fantastic and it was the best! (Jack)

*It was very neat and very good and it made more sense than the *Puss in Boots* and *Stitch* one. Because I did more work and wrote more pages. (Tess)*

I tried my hardest and strived for accuracy and it was really fantastic work. (Gordon)

I done more work. I wrote more stuff. (Mel)

*It is so good. It is not messy work. My *Nemo* work has more than the *Stitch* and *Puss in Boots* work. (Adam)*

*My work is very good and I set it out neat so it made sense. Think it is 5 stars because I did a lot of work and it is a very very very good *Nemo* description. I tried to do my best work. (Lea)*

The students had the self-belief that they were now performing very strongly in their writing at the conclusion of the action research.

From the survey it was also evident that the students attributed their ability to write better as a result of being able to use the graphic organiser to plan their writing. This is apparent from their comments in response to 'One thing I have learnt is...':

That it was good that I knew what I needed to do and think about using my adjectives better. I got to write all the things on the fishbone diagram. (Jack)
To do my best writing and think about what I'm writing because I write it down first. (Tess)
That I thought before I write it down and think about my words when I describe things like the character Nemo. (Gordon)
To do more better writing and think about what I am writing. (Mel)
I got to copy off my fish diagram. It was easy. (Adam)
How to write a lot of work and write my paragraphs. (Lea)

The lesson evaluations* carried out by Kylie's supervising colleague in Week 9 revealed that the students had not only improved in their writing performance and ability but also that their attitude towards writing had improved. The following comments illustrate:

I can't believe how much writing the children did on their Nemo descriptions. I barely heard a "peep" out of them.
They ... have a much more positive attitude to their writing, as do all the students from my observations.
The children find greater ease in their writing now and very much enjoy completing their graphic organisers beforehand, to use when they write.

Kylie's journal entries* reflected similar findings to the lesson evaluations.

I cannot believe the transformation in the children's writing, as well as their attitude towards writing.
The children feel they themselves have improved also.
The children now have structure and substance to their writing.
Generally the children are now using paragraphs, the correct language features, the proper text structure and have moved on from simply making statements in their writing to additionally supporting them with a rationale/justification.

Kylie also observed there was a positive change in the students' attitudes towards writing, a more independent and conscious work habit during writing sessions.

Finally, the students' self-assessed capacity matrices*for each of the three writing tasks reveal the students' belief that they had improved in their writing performance over time. Table 1 is a translation of their capacity matrices into average star rating (across criteria).

Table 1: Student self-rating in each of the three writing tasks

Student	Average Star Rating for <i>Stitch</i> Description	Average Star Rating for <i>Puss in Boots</i> Description	Average Star Rating for <i>Nemo</i> Description
Jack	2.4	2.9	4.9
Tess	1.4	2.7	4.7
Gordon	2.6	3.0	4.3
Mel	1.4	2.2	4.8
Adam	1.7	2.9	4.8
Lea	1.0	2.6	4.7

All the students indicated that their overall personal performance in their writing tasks had improved markedly over time.

Reflection

The data all lead to the same conclusion for Kylie: there was a notable improvement in the students' writing after the introduction of the graphic organiser as a planning tool in a rich context for students' writing development. The student work samples, capacity matrices, journal entries, lesson evaluations, teacher assessments and student survey all combine to substantiate the finding that the students' writing performance was enhanced as a result of employing the graphic organisers for planning writing experiences and, furthermore, reveal an improvement in the students' attitude towards writing. A combination of the students engaging in modelled, guided and independent writing tasks with the addition of employing graphic organisers for planning these writing experiences has contributed to a significant improvement in the writing performance of the students in the class.

The teachers attributed the children's writing development to graphic organisers implemented by Kylie. A more reasonable attribution would be that graphic organisers were part of a package. The way Kylie introduced them, the ways that the scene was set for using them and the standards set were all contributing factors. In addition, using graphic organisers as part of the students' 'usual' writing routine contributed to the overall success of the project.

This action research lends some support to McTigue's (1992:1-28) contention that graphic organisers can be used effectively in organising information and ideas, generating and elaborating on ideas, building relationships between ideas, relating new information to previous knowledge, storing and retrieving information, and assessing thinking and learning. Caviglioli et al. (2002:100) stated that children feel reassured by the structure graphic organisers offer them and this research complements their view. Moreover Kylie found that graphic organisers can be used effectively, as an important part of a whole strategy, in an *early childhood* classroom.

Kylie believes that undertaking this action research project has led to a further improvement and refinement in her own teaching performance, knowledge and understanding.

I feel now, after having completed the (action)research, that I should have supported the students more during the writing process. I was too concerned with not affecting the results of the research that I feel I neglected the students when they may have needed more support, considering that they were only (early learners). My lack of experience teaching students this age meant that I had very high expectations of the students' work and, although the students far exceeded my expectations, my expectations may not have been developmentally appropriate, having only taught stage 2 and stage 3 previously. I made the children complete their independent writing tasks totally independently, as if it they were in an 'test' situation, for example, no talking, asking questions and so forth.

Kylie's reticence indicates something of a misunderstanding of her role wherein she would have been better to keep to her own style of teaching throughout.

Time was not sufficient to allow for a second action research cycle. From the feedback of this research, a second cycle exploring Kylie's ability to develop the children's writing in other text types and having them construct their own graphic organisers would be interesting. The reason for the latter is that the students would have more control and choice about how they plan for their writing and have more of an opportunity to structure their writing using graphic organisers in their own way. This kind of action research connected into classroom realities would lead to Kylie's further understanding of the way that young children learn to write and her capacity to influence this.

Conclusion

Kemmis and McTaggart (1988:22) affirm that 'Action research is an approach to *improving education* by changing it and learning from the consequences of changes.' When such action research is controlled by the intern's choice of what to learn then the action research while on internship can be readily considered as work based learning in the context of teacher education. The extent and depth of the reflection possible by an intern is well illustrated by the extensive case presented above. The original assignment received the highest grade but each year several students achieve this level of work in reflection on self and then actions leading to a final reflection. Additionally, selecting and using a range of graphic organisers for writing development has drawn attention to the potential of graphic organisers in early childhood.

This capstone project, conducted on a ten week internship as the final component of a BEd(Primary) course, has been a significant vehicle for empowering and improving Kylie's teaching practice. Action research provided a model for her future classroom-based research and lifelong learning. Its quality is a testament to what is possible when a systematic and intentional task is undertaken as part of being one's own teacher educator.

References

Armbruster, B.B., Anderson, T.H., & Meyer, J.L. (1991). Improving content-area reading using instructional graphics. *Reading Research Quarterly*, 16: 393-416.

Bloomfield, D., Taylor, N. & Maxwell, T.W. (2004). Enhancing the link between university and schools through action research on teaching practicum. *Journal of Vocational Education and Work*, 56(3):355-371.

Brookbank, D., Grover, S., Kulberg, K., & Strawser, C. (1999). *Improving student achievement through organisation of student learning*. (Master's Action Research Project) Chicago, IL: Saint Xavier University and IRI/Skylight. (ERIC Document Reproduction Service No. ED435094).

Caviglioli, O., Harris, I., & Tindall, B. (2002). *Thinking Skills and Eye Cue (IQ): Visual Tools for Raising Intelligence*. Sydney: Hawker Brownlow Education.

Cohen, L., Manion, L., & Morrison, K. (2000). *Research Methods in Education*. (5th edn). London: RoutledgeFalmer.

DeWispelaere, C., & Kossack, J. (1996). *Improving students' higher order thinking skills through the use of graphic organisers*. (Master's Thesis) Elk Grove Village, IL: Saint Xavier University. (ERIC Document Reproduction Service No. ED400684).

Dinkelman, T. (2003). Self-study in teacher education: A means and ends tool for promoting reflective teaching. *Journal of Teacher Education*, 54(1):6-18.

Gallick-Jackson, S.A. (1997). *Improving narrative writing skills, composition skills, and related attitudes among second grade students by integrating word processing, graphic organizers, and art into a process approach to writing*, Fort Lauderdale, FL, (MS Practicum Project), Nova Southeastern University. (ERIC Document Reproduction Service No. ED420064).

Gardill, M.C., & Jitendra, A.K. (1999). Advanced story map instruction: effects on the reading comprehension of students with learning disabilities. *The Journal of Special Education*, 33(1): 2-17.

Griffin, C.C., & Tulbert, B.L. (1995). The effect of graphic organisers on students' comprehension and recall of expository text: A review of the research and implications for practice. *Reading and Writing Quarterly*, 11: 73-79.

Grundy, S. (1995). *Action Research as Professional Development*, Occasional paper No. 1, Innovative Links Project Canberra: AGPS.

Harris, P., McKenzie, B., Fitzimmons, P., & Turbill, J. (2003). *Writing in the Primary School Years*. Sydney: Social Science Press.

Kemmis, S., & McTaggart R. (1988). *The Action Research Planner* (3rd Ed.), Warrum Ponds, Vic.: Deakin University Press.

Kemmis S. & McTaggart R. (2000). Participatory action research. In N. Denzin and Y. Lincoln (Eds.) *Handbook of qualitative research* (2nd edn). Thousand Oaks, California: Sage.

Macintyre, C.(2000).*The Art of Action Research in the Classroom*. London: David Fulton Publishers.

Maxwell, T.W.(2003).Action Research for Bhutan.*Rabsel III*: 1-20.

Maxwell, T.W. (2011). Assessment in higher education in the professions: Action research as an authentic assessment task.*Teaching in Higher Education* (February).

Maxwell, T.W., Bloomfield, D. & Taylor, N. (2003).Teaching/learning action research and connecting with the internship in the BEd", Paper presented at the meeting of the FEHPS 'Honouring our Teaching' Symposium, Armidale, UNE, September 19.

Maxwell, T.W., Reid, J., McLoughlin, C., Clarke, C. & Nicholls, R. (2001).Online support for Action Research in a Teacher Education Internship in rural Australia, Refereed paper presented at the Society for the Provision of Education in Rural Australia Annual Conference, WaggaWagga, 8-11 July.

McClanahan, L.G. (2008). Practicing what we preach: Using reflective writing as an indicator of learning. *Studying Teacher Education* 4(2): 105-114.

McTighe, J.(1992).Graphic Organizers: Collaborative links to better thinking. In N. DavidsonandT. Worsham(Eds.) *Enhancing thinking through cooperative learning*.New York, NY: Teachers College Press.

Meyer, D. J.(1995).The effects of graphic organizers on the creative writing of third grade students(MA project) Kean College, New Jersey (ERIC Document Reproduction Service No. ED380803).

National Reading Panel (2000). Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction.Retrieved November 2008 from www.nichd.nih.gov/publications/nrp/mallbook.htm.

NSW DET (NSW Department of Education and Training) (2010).Reading Recovery.Retrieved November 2010 from www.schools.nsw.edu.au/studentsupport/programs/readingrecovery/index.php.

Ritchie, D.,&Volkl, C.(2000).Effectiveness of two generative learning strategies in the science classroom.*School Science and Mathematics*,100(2): 83-89.

Robinson, D.H., Odom, A.B.S., Katayama, A.D.,Hseih, Y-P.,&Vanderveen, A.(2006).Increasing text comprehension and graphic note taking using a partial graphic organiser.*The Journal of Educational Research*,100(2): 103-111.

Trabasse, T.&Bouchard, E.(2002). 'Teaching Readers How to Comprehend Text Strategically'. In C.C. Block and M. Presley (Eds.) *Comprehension Instruction: Research-Based Best Practices*(176-200). New York: The Guilford Press.

VCAA (Victorian Curriculum and Assessment Authority) (2011).Graphic Organisers.Retrieved 15th July from <http://vels.vcaa.vic.edu.au/support/graphic/index.html>

Notes on contributors

Kylie Emerson

Kylie completed this action research report as her final assessment task in the Bachelor of Education (Primary) award at the University of New England, Australia. She is currently teaching secondary English/history with the New South Wales Department of Education in northern New South Wales.

TW (Tom) Maxwell

Tom taught versions of this unit/subject for more than a decade. He retired in 2010 and holds a adjunct professorial role with the University of New England. He has published in the areas of teacher, international and doctoral education.