

Why Research in “Real Time” Matters

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Introductory

This brief paper (which began as an internal discussion document) is an attempt to explore the implications – pedagogical and practical – of applying a “real time” principle to teaching students how to conduct empirical research and produce a dissertation as part of their undergraduate teacher education programme at the Centre for Creative Education in Cape Town (CCE). A very brief account of the CCE student research programme is necessary to provide the context for this discussion.

The research programme at the Centre for Creative Education

The main task of Centre for Creative Education is to qualify teachers to teach in Waldorf and main-stream schools through a Bachelor of Education degree course. As part of this course, students are required to submit a formal dissertation on some aspect of primary school education. Over recent years CCE has developed an integrated research programme that has both raised the quality of research and enabled students to meet tight deadlines for submission of research reports. The features of this programme are the following:

- The first quarter of the final year is devoted entirely to research. Final research reports are to be submitted before the start of the second quarter.
- All students are required to explore a common research theme. This theme changes every year.
- Within this theme, students pursue individual research questions.
- Theory and practice are completely integrated: instruction in research method both guides and accompanies the research process.
- Supervision takes the form of detailed formative assessment of students’ work, submitted, critiqued and revised through rapid email communication.
- Research reports are submitted chapter by chapter, with tight deadlines. Each chapter builds on the previous one and acknowledges and addresses the possible limitations of the previous one. Cosmetic rewriting is discouraged; explicit critical reflection and change of mind encouraged.
- Research is “qualitative” not “quantitative”. It relies on interpretation of evidence and not on measurement and is appropriate for small-scale exploratory investigations in the real-life situation of the classroom.
- The programme takes students through three stages of work:
 - Design (including definition of the research question, a literature review and appropriate methodology),

- Implementation (including immersion in a school or classroom situation for systematic data collection over a two week period, and
- Analysis (interpreting research data in a systematic, reflective and open-minded way).

The ‘real time’ debate

It was the critique of student dissertations by an external examiner that forced me to analyse just what it is that convinces me of the importance of “real time” in student learning (and possibly in all learning). This principle had so quietly and incrementally crept into our research practice at CCE over the last eight years that it had achieved taken-for-granted status. The value of the examiner’s query was that came as a challenge to the ‘obvious’.

The key paragraph in the examiner’s report I need to address is the following:

Most of the reports pointed to a difficulty that students experienced in defining where – in terms of time – they were standing when writing the report. In many cases, their writing reflected a mixture of three standpoints in time – before, during and after the research. It would be helpful if they could be encouraged to write from a more consistent standpoint of after the research had been completed.

The examiner’s position here is the one she is accustomed to, the one that university staff and students assume to be “normal” and customary. This is the position I worked from when I began teaching and supervising student research at CCE some eight years ago. At that time the students took an introductory course in research method, designed a research project that interested them, carried out the research and gathered their data, and then, finally, wrote – with hindsight - their research reports. It was the problems that emerged from this conventional approach that over time led to the “real time” innovation.

Problems with the conventional approach

The most obvious problem of this approach was that many students were unable to submit their research reports on time. This caused considerable stress, eroded other aspects of the final-year curriculum, made excessive demands on staff time, caused financial problems, and frequently delayed graduation of even able students, sometimes by years. This problem was a particularly severe one for students with poor formal education.

A further obvious problem was that students were not, in fact, able to apply or transfer what they had learnt in their research course to their actual research practice. The gap – chronologically and conceptually – was too big. They had been exposed to research method in modular, theoretical form; they did not know what its principles meant in terms of practice. These would have to be rediscovered (with difficulty) within the praxis of their own research project. And this lay in the future.

The third obvious problem was that the range of individual and idiosyncratic research topics that students chose to investigate meant that their topics were framed by common sense assumptions, were under-theorised and were difficult to supervise.

Curriculum strategies

We discovered that the way forward lay in a common research theme, the concentration of research work within a tight time-frame, a rigorous support structure and, most crucial of all, a way of integrating theory and practice. *“Real time” became the key mechanism of integration.* In practical terms these innovations worked in the following ways.

The integration of the introductory research module and school-based research

A two-week research module at the start of the final year flowed directly into school-based research. The task of this module was to enable students to write the first chapter of their research reports and submit this

(in draft form) within a week after the module ended. The second chapter was due three weeks later, and the final chapter two weeks after this. Further research classes were scheduled to support this process. This procedure enabled the research course to be relevant (in “real time”) to each of the three stages students were going through in their research process – planning and design, data collection and organisation, and analysis and discussion. This form of concentration in time and integration of what had been separate components was the key innovation.

The “research team” approach

The class became, in fact, a research team, and experienced an apprenticeship in research method. This apprenticeship involved engagement with a demanding academic text, defining a research question, devising a research plan, and, through all this, grasping what being a researcher entailed. A firm supporting structure was provided by pre-selected texts, sequential tasks and a simple research report format. As work progressed students developed individual approaches to the common task, introduced new readings and first person plural became first person singular.

Research as a process of writing: communication, critique and revision by email

Students were required to become writers from the first moment of the research module. The pressure to write was relentless. To begin with, what was written was examined, critiqued and improved in class. Then, after two weeks, all writing was submitted and critiqued by email with a 24 hour turn-around time. Research teacher became research supervisor. Though there were strict deadlines for each draft chapter students could send small sections for comment whenever they wished to. All supervision was by email. There were no meetings. All conversation was both in writing and *about* writing.

The principle of writing each chapter in “real time” sequence

Research reports were submitted chapter by chapter, and these chapters were regarded as final drafts. Chapter 1 was a genuine research plan, written before immersion in the research site. Chapter 2 reported on the actual implementation of this research plan. And Chapter 3 reflected on the significance of the data reported on in Chapter 2. Each chapter was enabled by, and built on, the previous one. And each acknowledged and addressed the limitations of the previous one. Cosmetic rewriting and “false coherence” were discouraged; explicit critical reflection and justified change of mind encouraged. So research reports were written from three time perspectives in answer to three questions: what do I intend to do; what I have I discovered; and what does this mean? I do not think students were confused by these different positions (as the examiner suggested). I think they experienced them as three consecutive and logical steps towards task completion.

Why does the principle of “real time” matter?

The “real time” principle is a pedagogic principle. It matters for motivation, for reflexivity and for task completion. All are interrelated.

Motivation

In motivational terms, “real time” meant “real task”, not preparation for some future task. Students were engaged as a group and individually with a series of real tasks that were achievable by all within a relatively short time. Every small piece of writing submitted was a stage in the completion of the task. Piece by chronological piece, and day by day, each student could see the text of her actual research report becoming a reality. This sense that “I am writing my actual research report now” was highly motivating: it generated both a strong sense of ownership of the task and a growing sense of confidence in its completion. *This was not preliminary work*: the final report (barring a careful edit) was taking shape in the present tense.

The “real time” equals “real task” principle was crucial, I think, in the degree of personal investment visible in the students’ work. The external examiner put it like this:

I think the biggest strength of these research projects was the deep personal investment and interest of the students in their research questions; this clearly motivated them and enhanced the quality of the research. This personal investment and motivation furthermore translated into a style of writing that allowed them to express a strong sense of their own ‘voice’.

This sense of the authenticity of the research task and of personal engagement in the research journey seems particularly important at a time when some student research work in Education at South African universities has been reported to be “dummy research”, going through the motions of research procedure without ownership of and understanding of the research task.

Reflexivity

The customary way of writing a research report is to revise earlier drafts so that these are consistent with the final draft. A position of hind-sight, taken at the end of the entire research process, determines which parts of earlier drafts will be retained, modified or omitted. The aim is to produce a coherent, consistent and smooth account of research process and findings: a persuasive text. In producing such a final text, error, shift of focus, loss of faith in a research question – indeed critical reflection on an unfolding intellectual process – may be regarded as interference or irrelevance and omitted or concealed.

The examiner made the following comment about the students’ capacity for critical reflection:

Almost all also made very thoughtful critical reflections on their research journeys, and on themselves as researchers; this development of a capacity for ‘meta-reflection’ is particularly valuable to them as researchers.

In my view, it is the requirement to write in “real time” that licensed and produced such “meta-reflection”. Such reflection became the necessary substitute for erasure. Inconsistencies needed to be explained rather than concealed. Coherence lay in explicit justification and explanation: an honest text, aware of (and even enjoying) its uneven process of production.

Task completion

Task completion is the most concrete consequence of writing in “real time”. With very rare exceptions, students completed and submitted their entire research reports within four months. Before the concentration of research in the first quarter of the final year and before the “real time” stipulation, students had needed at least a year, and some several years, to complete and submit their reports. A major cause of this was that the daunting retrospective task of final report writing was continually deferred. The report was never quite good enough, never quite finished and never quite coherent enough. And other priorities inevitably intervened.

In conclusion

In concluding this brief case study, I would like to express my appreciation to the examiner who questioned my “real time” pedagogic fundamentalism and for choosing to see examiners’ reports as opportunities for reflection and dialogue. It has been a long time since last I was required to explore dearly held pedagogic assumptions, and I have enjoyed the process.

Notes:

1. *My appreciation to Associate Professor Linda Cooper of the University of Cape Town who, as external examiner, sparked the above discussion.*
2. *A full account of the student research programme at the Centre for Creative education can be found in the RoSE Journal Volume 5 Number 1 pp. 94-114.*