Critical Inquiry in pre-service teacher education: A vehicle to develop a critical inquiry approach in teaching Creative Arts

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Abstract: **This paper gives a cursory view of the nature of critical inquiry, as well as highlighting some of the core advantages that critical inquiry holds to improve teaching and learning for teachers. This paper proposes critical inquiry as a valuable tool to be included in pre-service teacher education, as it equips pre-service teachers with needed and valuable inquiry skills, and an awareness of how to facilitate growth and success in their own teaching once they become in-service teachers. How critical inquiry could be spread over the four years of study of the pre-service teachers to ensure a spiral development thereof, is proposed. Sample assignments for critical inquiry are also provided to support the intention of critical inquiry as proposed in this paper.**

Keywords: **action research, Creative Arts, problem-solving, critical self-reflection, collaborative critical inquiry.**

1. CRITICAL INQUIRY

During the twelve years that I was training Arts (music) and Arts and Culture teachers at the Windhoek College of Education (Windhoek, Namibia), critical inquiry and the development of a critical inquiry approach amongst pre-service teachers was a compulsory component of their School-Based Studies. At the University of Pretoria (Pretoria, South Africa) where I lectured music at the Faculty of Humanities Education, as well as at other South African universities visited during a field study, Critical Inquiry was not part of the students' School-Based Studies (or of any other field of their study programme). I found the practice of critical inquiry at the Windhoek College of Education very useful, as the students developed valuable inquiry skills, outside the lecturing room, in the schools where they do their practice teaching, and where it will matter when they become in-service teachers. Out of my personal experience, important skills that are developing through critical inquiry during School-Based Studies (hereafter being referred to as SBS) include:

- the development of a reflective attitude, and creative, analytical, and critical thinking;

- the development of the ability to actively participate in collaborative decision making (together with the guardian lecturer, the subject/support teacher(s) and peer students);

- the development of understanding and respect for arts and cultural values and beliefs, especially those of their own country;

- the development of a social responsibility towards learners, colleagues, the community around them, and the nation of their country as a whole;

- the opportunity to enable pre-service teachers to take responsibility for their own learning, to be aware of ways to develop themselves professionally – both through their own initiatives as well as through formal education opportunities.

2. THE SCOPE OF CRITICAL INQUIRY

To give an outright definition of critical inquiry is difficult. The difficulty lies not in understanding the concept, but in the contradiction that assigning a fixed definition to the process would cause. However, within the constraints of individual interpretation and contextual differences amongst different sources on this topic, it can be explained that critical inquiry is both a process and a way of thinking. It is a process which requires observation, questioning and reflection into the real-life situations, by the persons themselves, so that they gain understandings of the situation which take into account the social, historical and political contexts which gave rise to them. A reflective action is "that which involves active, persistent and careful consideration of any believe or practice in the light of the reasons that support it and the further consequences to which it leads" [Dewey, in Louw and Du Toit 2010:174]. Dewey also stated that critical inquiry is a "holistic way of meeting and responding to problems, a way of being a teacher" [ibid]. Action research therefor requires a participatory way of understanding the personal knowledge and practical judgment of practitioners. It is a way of thinking which takes the practitioner away from routine considerations of the multitude of day-to-day pressures, to being able to reflect more widely; to question ideas and practices which are taken for granted; to examine the commonplace as artefacts of particular social, political, cultural and ideological orientations; and to develop a commitment to inquiry which sees everything as potentially problematic [Cohen et al 2000:226 – 230].

S. Kemmis [in Martyn Hammersley 1993:177] states that educational action research could be presented as a form of inquiry which enables teachers to clarify and develop their educational values through systematic reflection on their classroom practice. Cohen and Manion [1994:186 – 187] describe action research as a "small-scale intervention in the functioning of the real world, and a close examination of the effects of such intervention, because its focus is a specific problem in a specific setting. The emphasis is not so much on obtaining generalizable scientific knowledge for a particular situation and purpose." Also see Ebbutt [in Burgess 1985:156].

Action research is research into one's own practice. Moore et al. [2003:119] agree that the aim in action research is self-critical reflection which helps the practitioner to emancipate him-/herself from the dictates of habit, custom, precedent and coercive social structures. The goal of action research in educational classroom practices could be regard as a vehicle to gather evidence that can help the teacher to make decisions and invent action plans related to the day-to-day problems he or she experiences. As the education systems change from time to time to address the flaws in it, every in-service teacher should regularly inquire his or her teaching, to take stock of the successes (or failures) of the learner outcomes. "Most action research projects are aimed at determining the effectiveness of new curriculums, instructional materials such as visual aids, alternative teaching methods or different ways of organizing the classroom" [Borg 1987:286]. The goals of action research can be briefly summarized as being:

- *contextualized* – it is set in real places with real people who are infected by their political, historical and social circumstances;

- *intentional and systematic inquiry* – involving observing, questioning and reflecting in an organized fashion;

- *social and collaborative* – where the questions asked and knowledge gained are shared with others involved in the process.

Action research promises progress in professionalism. By focalizing action on the careful selection of data to diagnose problems in teaching and learning, a disciplined search for solutions, and an agreement to act, as well as conscientious monitoring of whether and how much the solution worked, the teacher lives the problem-solving process for him-/herself and model it for their learners. At the same time, the potential to develop a professional ethos is created to always strive to improve performance by learning, and to solve more and more problems. "The term *action research*, then as now, captures the notion of disciplined inquiry (thus, 'research') in the context of focused efforts to improve the quality of the organization and its performance (thus, 'action')" [Calhoun 1994:7].

The cycle for an action research endeavour can be illustrated as follows:
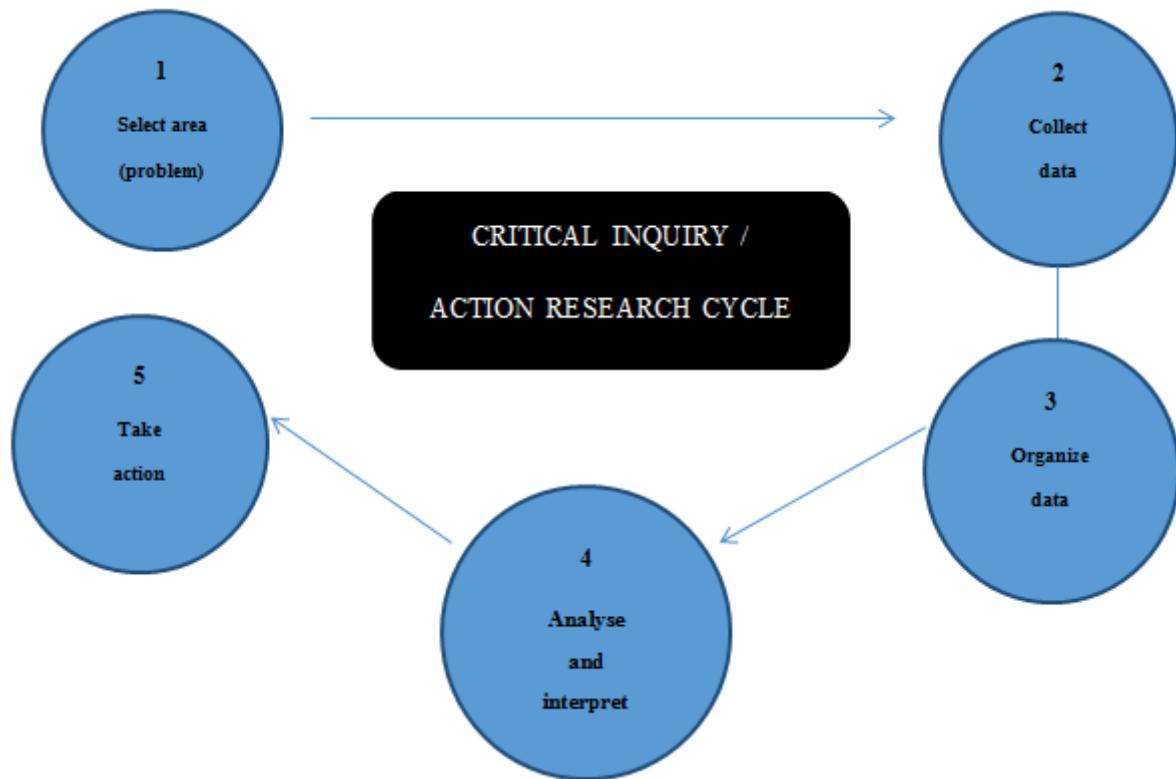
Fig. 1: Cycle of Critical Inquiry

It happens that many schools in a country or specific area battle with the same problems concerning teaching and learning of Creative Arts. To support one's own initiatives (to the internal school problem) in seeking for workable solutions and to benefit from the collective wisdom of other educators, academics and institutions (external information on the existing problem), school-wide action research – research on cluster level or provincial level – could be beneficiary on a broader spectrum. This kind of action research will include a study of the available professional literature by academics and relevant stakeholders in educational research. This perspective of critical inquiry has the potential to lead to critical inquiry as a process, that is, that the teacher/researcher is able to:

• make connections between theoretical understandings and their own experiences;

• understand that issues are not only a matter of personal concern, but are interconnected with the socio-political history of the country (or area) and current economic circumstances, as well as values, beliefs and expectations, within the wider community; and

• critique their own and other's assumptions in order to develop new understandings.

Such a perspective of critical inquiry requires and promotes a balance between the individual and their social environment. It recognizes that individuals each have their own opinions, expectations and assumptions about education, teaching and learning, teachers and learners. But it also acknowledges that these opinions, expectations and assumptions have developed within particular social, cultural and political contexts.

Because of this balance, teachers should understand that many of the problems and issues which they encounter in their classrooms are not necessarily entirely of their making, although they do have a responsibility to alleviate the impact of those problems on their learners. This perspective also enables teachers to look for explanations and 'answers' in a much wider perspective (on cluster or provincial level). To enhance teachers' awareness of the impact of the context (problems) on their work and that of their learners, writers like Wright, Burrows, and McDonald [2004:5] have emphasized the importance of collaborative critical inquiry through which shared understandings and co-operative responses to issues can be achieved. The following figure – representing a funnel – illustrates how the mixing of internal and external affords to deal with a specific problem or issue, can result in a collective decision-making process:
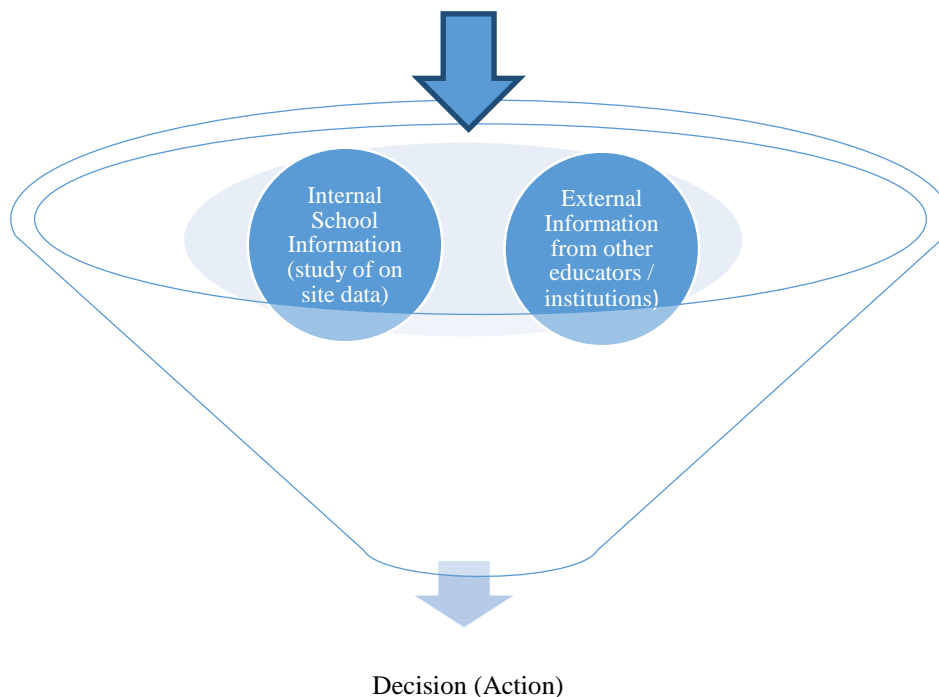
Fig. 2: Mixing of internal and external information in action research

When is the use of action research fit and appropriate? The answer in short is: action research is appropriate whenever specific knowledge is required for a specific problem in a specific situation; or when a new approach is to be grafted onto an existing system. Areas in school, in the teaching of Creative Arts, where action research could be use, may include, for example, the following:

- *teaching methods* – replacing the traditional method of only teaching arts in separate compartments, by a new discovered method where integration will be possible;

- *learning strategies* – adopting an integrated approach to learning of the arts and cultures in preference to a single-discipline style of teaching and learning of the arts;

- *evaluative procedures* – improving one's methods of continuous assessment;

- *attitudes and values* – encouraging positive attitudes to the arts and cultures of all ethnic groups in a country, or modifying pupils' value systems with regard to indigenous arts and cultures that are different than their own;

- *in-service development of teachers* – improving teachers teaching and subject content skills in Creative Arts.

As future teachers of schools, pre-service teachers should have the opportunity to develop the necessary knowledge, skills and attitudes to be able to apply critical inquiry thinking on two different, but interlinking, levels. Firstly, pre-service teachers will have the opportunity to use creative, analytical and critical thinking in their daily teaching during SBS in very practical ways, to select and adapt their processes and the curriculum content to their teaching context, and to the needs and interests of their learners. And secondly, teachers will be able to make their contribution as part of the social reform through participating in on-going curriculum and professional development. All teachers and other educators are key contributors to the transformation of education, being mediators of learning, interpreters and designers of learning programmes and materials, leaders, assessors and learning area or phase specialists. Critical inquiry provides the opportunity to do so.

3. CRITICAL INQUIRY IN PRE-SERVICE TEACHER EDUCATION

The research component of Critical Inquiry can complement the opportunities for pre-service teachers to practice their critical inquiry thinking. To try to make the processes more explicit to pre-service teachers who are inexperienced in research, it is necessary to explain to them how the cycle of Critical Inquiry is defined, and what is expected of them

during their training period at the university. A proposed Critical Inquiry cycle for pre-service teachers to use during their SBS period could encompasses:

- identifying and probing an area of interest or concern;

- investigating it (through observation, questioning, literature review, etc.);

- reflecting and evaluating findings and looking for alternative ways to address the problem;

- inventing proposed action to be taken.

It is suggested that SBS only start in Year 2 of the B. Ed-programme, during which time students will conduct a systematic observation study in a school (contextualized study). They collect information and try to understand both the learners' cognitive development and the socio-cultural factors that affect the lives of the learners. The information is gathered through observations of learners, or a group of learners, in and out the classrooms, through discussions with the teachers of the learners, and possibly discussions with the learners and their parents during a parent evening (intentional and systematic inquiry). The form (Table A to follow after this paragraph serves as an example observation schedule for this purpose. The second-year students reflect on their information to create, for themselves, a better understanding of how children learn and develop. Through collaboration with their peers and in-service teacher educators (social and collaborative inquiry) the students begin to explore learning in Creative Arts (and other subject areas); to examine which factors might impede or improve learners' success; and to consider how they, as teachers, need to teach to meet the needs of all of their children.

TABLE A: Field Survey for Critical Inquiry (Year 2)

SECTION A: INFORMATION ABOUT THE SCHOOL

Name of school: …………………………………………

Province: ………………………………………………….

Short history of school:

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Number of learners: ………….… Number of teachers: ……………………

Grades presented: ……………… Language use on playground: ……………………

SECTION B: INFORMATION ABOUT CLASS GROUP OBSERVED (Creative Arts)

Grade: ……………………… Number of learners: ……………….

Number of boys: …………… Number of girls: …………………..

Organization of learners in class (draw a circle around the appropriate answer).

rows   groups   circle

Number of periods per week for Creative Arts: …………………

SECTION C:

In order to learn about the artistic expression of school going children in South Africa, the following observations have to be made and elaborate on:

Observe the various songs, games, dances, storytelling, mime, and role playing of learners during relaxed activities, e.g. during breaks.

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Observe the quality of intonation while singing and voice production take place

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Observe which kind of movements, the diversity of movements, and body parts that are used while singing

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Observe any use of body percussion and the patterns that are used while singing

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Observe the creating of alternative words while singing a play song

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Observe the topics of dramatizing, mime, and characterization

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Observe a child during a visual art activity. Determine if (s)he has passed the pre-schematic stages and if (s)he is already working in the gang stage.

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Record your observations of the child by comparing this learner's drawing to the   characteristics of that specific stage (where the other learners are at that moment)

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Collect an original example of the learners' work. The name and age of the child must be on the drawing. (This is to substantiate your observations.)

In order to determine how children, think and learn during performing and visual art activities, answers to the following questions should be sought:
Where do children learn games, songs and dances?

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Which learning experiences took place while children are busy with arts activities?

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Did they only learn "arts facts" and skills, or were other kinds of learning also taking place, e.g. problem solving, analysing, synthesizing, concluding; etc.?

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What feeling do they experience about drawing, painting, music, dance, and acting?

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What is the level of self-confidence when learners sing, dance, draw or paint?

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What are the themes using in drawing, painting, singing, dance, acting?

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To enable the student to determine the level of artistic and performing knowledge of the children in schools, the following issues could be investigated and elaborated on:

Do the pupils learn about traditional crafts, songs, dances, and games at home or in school?

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How many of the following does the learners know? (Supply particulars.)

Religious songs:

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Pop, rock, reggae, rap:

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Traditional ethnic songs;

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Western folk/nursery/children's songs:

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Other (e.g. Eastern World)

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SECTION D: *To study the educational issues surrounding teaching the performing arts, the following should be investigated and elaborate on:*

The role of a learner-centred approach in arts education

i. Is the existing knowledge of the children (e.g. their knowledge of songs, dances, stories, etc. out of their own culture) used during arts education activities?

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ii. Does the teacher use traditional South African and African music, dances, visual art examples and dramatized stories, or examples out of Western cultures only to explain concepts of music, dance, drama, and visual art?
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iii. Are learners actively involved in the activities?

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iv. How would you improve the current situation that you observed?

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The following observations on educational issues for Drama–in–education must be accurately recorded:
i. Are any drama teaching methods used in the learning environment of the school?

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ii. Do drama teaching methods encourage learner–participation within a lesson?

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iii. Will drama teaching methods improve the teaching and learning process?

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iv. Will drama teaching methods be able to improve and enrich the total development of South African children?
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SIGNATURES:

Lecturer……………………………..   Student: ………………………………..

Date:……………………………..   Date:………………………………..

NOTE:

Now that many guidelines and directions for your critical inquiry project have been supplied through this questionnaire, you will have to design your own work plan to:

• Observe the learners you have selected;

• Arrange, select and record your observations;

• Reflect on the data to find ways of helping learners with individual learning needs;

• Reflect on the data to find interesting trends between boys and girls, certain age groups; etc.;

• Write up your project to share your findings with your peers; the involved teacher(s) at the school; your subject lecturer and any person who might gain from it.

During SBS 3 pre-service teachers can conduct a small-scale Critical Inquiry (see Tables B – H below). They build on their knowledge of learners in schools (gained during SBS 2) and focus their inquiry during their SBS on their own

teaching and learning. They explore the impact of their teaching on the learners and the learning environment in which they are working (contextualized inquiry). They gather information through observations of the learning environment, the people involved, and how these combine to influence the teaching and learning process. To get a better understanding, they may also need to use other research processes (e.g. literature review) to clarify the questions which arise from their observations (intentional and systematic inquiry). The pre-service teachers will then propose an action plan based on the information and findings, reflect on and prepare a report of all of the information gathered so that they can share – with peers, teacher educators and their guardian/subject lecturers – their questions, findings and emerging understandings of their selected learning/teaching issue (social and collaborative process). Examples of process schedules and report forms for assessment (by the lecturer) follow below:

Critical Inquiry: Process Monitoring (Year 3)

TABLE B: Phase 1: University Based Studies

STUDENT: _____   YEAR GROUP: _____

WEEK	RESEARCH PROCESS	REMARKS
	Close co-operation between student and subject lecturer (Creative Arts) to prepare student for CI. Student review research process undertook in Year 2. Lecturer provide and discuss guidelines for CI.	Formative assessment and supportive guidance provided by subject lecturer throughout the process.

TABLE C: PHASE 2: SCHOOL BASED STUDIES

WEEK 1 & 2	Identify topic of research	REMARKS
DATE	Begin to collect information about the topic. Select appropriate research methods (e.g. interviews, observation, field notes). Write sample interview questionnaires / points for observation) Do dummy run	
DATE	Collect data; keep careful records of data collected	
DATE	Reflect on data for possible emerging patterns. Jot down preliminary findings. Consider possible actions which may be taken.	

SIGNATURES:

Lecturer:……………………………………….   Student:………………………………

Date:……………………………………….   Date:…………………………………

TABLE D: Phase 3: University Based Studies

DATE	Continue with data analysis and developing a range of possible actions	REMARKS
DATE	Write a report and reflection on the whole research process	
DATE	Possible opportunity to present orally to peers and subject lecturer	

SIGNATURES:

Lecturer:……………………………………….   Student:………………………………

Date:……………………………………….   Date:…………………………………

Critical Inquiry:

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TABLE E: Report (Year 3)

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STUDENT: ……………………………………………………………….

YEAR GROUP: …………………….

CRITERIA	REMARKS
RECORD OF RESEARCH *Format of report is neat and professional* Neatly typed / handwritten; logical arrangement; section; page numbers; A4 format. Handwritten = max. 4 pages; typed = max. 3 pages *Introduction* identification of issue / area of concern; where conducted; size of sample; reasons for sample size *Gathering and organizing information* reasons for chosen method; sufficient methods used; meaningful organization of data; explanation of data analysis procedure; problems encounter and how overcome; appropriate identification of learner's needs *Suggested actions* suggested actions are appropriate to the context, the learner's needs, and the data	
REFLECTION, ANALYSIS AND SYNTHESIS *Critical analysis of the research and the context* Handwritten = max. 4 pages; typed = max. 3 pages reflection, analysis and synthesis of the whole process as a learning experience about learners, teaching and learning, demonstrating a problem-solving approach and drawing conclusions which are socially responsible	

SIGNATURES:

Lecturer……………………………..   Student: ……………………………………..

Date:……………………………..   Date:…………………………………..

Report (Year 3)

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TABLE F: Phase 1: University Based Studies

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STUDENT: _____

YEAR GROUP: _____

WEEK	RESEARCH PROCESS	REMARKS
	Enhancing critical inquiry / action research through revising the steps of critical inquiry and the data collection and analysis processes	

<div align="center">

TABLE G: Phase 2: School Based Studies

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DATE	Select topic; identify and define problem Consider ways to investigate problem Begin to read about the problem	REMARKS
DATE	General search for information Discussion with people Continue reading about the topic Make notes of useful ideas Decide on data collection processes	

DATE	Collect data; keep careful record of data collected Start to analyse data by organizing it into headings Reflect on findings Begin to think about possible actions	
DATE	Implementation of action plan	
DATE	Monitoring of action; observe the outcome in the learners and/or the learning environment Evaluate actions; reflect on actions	

SIGNATURES:

Lecturer……………………………..   Student: …………………………………..

Date:……………………………..   Date:………………………………..

TABLE H: Phase 3: University Based Studies

DATE	Continue with data analysis and reflections Write draft report	REMARKS
DATE	Share draft report with peers Improve on the draft report	
DATE	Final report	
DATE	Present report orally to peers and subject lecturer / other interested people Present report to subject lecturer for grading	

SIGNATURES:

Lecturer……………………………..   Student: …………………………………..

Date:……………………………..   Date:………………………………..

Pre-service teachers should, during their third year of study, develop a critical inquiry approach to their own teaching through:

• regularly reflecting on the impact of their teaching on the learners they are working with, and recording some of these reflections;

• identifying specific learners' abilities and interest, and plan to accommodate those abilities and interests in on-going teaching;

• collecting information about one issue relating to their own teaching and learning;

• outlining a range of possible actions which they might take to change the observed situation within the context they are teaching in;

• present a written report (for their SBS file) containing their information gathered, reflections, and possible actions.

During the fourth year of study pre-service teachers bring together their knowledge of learners, and the learning context, and inquire into their own ability as teachers, to bring about change. The pre-service teachers identify an area of interest and/or concern related to their own teaching of Creative Arts; gather information through observation of, and questions and reflections on their own actions as implementers of change, plus observations of the outcomes in their learners or the learning environment. Table I illustrates how this could be tackled. While the pre-service teachers are probing, acting, reflecting, and evaluating, they will also seek for alternative explanations, and attempt to critique their own assumptions, through sharing their ideas with colleagues and examining theoretical and practical implications of the issue through the lens of social and cultural values and beliefs [James et al 2008:34]. Through this latter process the pre-service teachers will learn to see themselves as able to transform the situation in line with their beliefs for educational reform.

Critical Inquiry:

TABLE I: Report (Year 4)

STUDENT: ……………………………………… YEAR GROUP: ………………

CRITERIA	REMARKS
RECORD OF RESEARCH *Present report in a neat and professional format:* neatly typed / handwritten; logical arrangement; sections; page numbers; A4 format Handwritten = max. 6 pages; typed = max. 4 pages *Introduction:* Area of concern where conducted Size of sample; reason for sample size *Gathering and organizing information:* Reason for chosen methods; sufficient methods used Meaningful organization of data; explanation of data analysis procedure Problems encountered and how overcome *Action plan:* Logical course of action as suggested by the analysis and interpretation of data *Monitoring action:* Describing learner's responses Analysis and interpretation of action; adaptations to action	
REFLECTION, ANALYSIS AND SYNTHESIS *Critical analysis of the research and context* Handwritten = max. 6 pages; typed = max. 4 pages Reflection, analyses and syntheses of the whole process as a learning experience about learners, teaching and learning Analytical and critical thinking about the context of that classroom and that school Demonstrating a problem-solving approach and drawing conclusions which are socially responsible	

SIGNATURES:

Lecturer…………………………….. Student: …………………………………..

Date:…………………………….. Date:…………………………………..

Fourth year pre-service teachers should maintain all of the approaches developed in their third year, and enhancing their critical inquiry approaches to their own teaching through:

- critically reflecting on learners' responses to their teaching;

- identifying specific learners' abilities and adapt their teaching during the process of teaching;

- investigating an issue relating to their own teaching; and plan, implement, monitor, and reflect on the actions they take to improve the teaching and learning process;

- examining their findings in the light of their own expectations and beliefs about teaching and learning, teachers and learners.

At each year level the pre-service teachers must be supported in their research through discussions in their SBS teams (peers; support teachers) and with their guardian lecturer/Arts lecturers. They should constantly be encouraged to develop a questioning/inquiry/problem-solving approach to their own teaching. The knowledge that each pre-service teacher has gained through this process, should be shared with their peers and other involved parties to expand the possibilities for transformation from the individual classroom to the society at large.

The Critical Inquiry can be applied to any classroom situation where a learning problem occurs. Examples of areas where Critical Inquiry could be used, include, for example, the following:

- teaching methods – replacing a traditional method by an alternative (newly discovered) one to optimize learning outcomes;

- learning strategies – adopting an integrated approach to learning in preference to a single-subject style of teaching and learning (i.e. integration of two or more arts disciplines in one project)

- evaluative procedures – improving one's method of continuous assessment

- attitudes and values – encouraging more positive attitudes to work, or modifying pupils' value systems with regard to some aspects of life

- in-service development of teachers – improving teaching skills, developing new methods of learning, increasing powers of analysis, of heightening self-awareness

- management and control – the gradual introduction of the techniques of behaviour modification

- administration – increasing the efficiency of some aspects of the administration side of school life.

[Cohen and Manion 1994:194]

4. CONCLUSION

Being a critical inquiry practitioner involves integration of theory, practice and contextual issues. Professional attitudes and values are portrayed in the teachers' curiosity and desire to learn; their openness to examining what they do and what they think; in their interest in working within complexity and contradictions; their commitment to seeking alternatives; and their willingness to critique; and to deal with ethical and values questions as well as practical ones. As Cohen and Manion put it: "It is important that the teachers taking part in the project are truly involved, that they know what the objectives are, what these imply, and that they are adequately motivated – or at least sufficiently open-minded for motivation to be induced" [1994:194]. A very important phase of the critical inquiry process is to share the newfound information with others, which will include the support teacher, the school authorities, the guardian/subject lecturer(s), and peers. Once an action plan is drafted and implemented, follow-up evaluation concerning the success thereof is crucial, in order to find out whether it worked, or whether something in the action plan should be amended/changed. Critical inquiry is an ongoing process as learning situations are likely to change from time to time.

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