ACTION RESEARCH AS A TOOL FOR PROMOTING REFLECTIVE PRACTICE AMONG TECHNIKON EDUCATORS PARTICIPATING IN A PROFESSIONAL DEVELOPMENT PROGRAMME

Abstract

The purpose of the project was to introduce the lecturers to critical reflective practice as a method of improving teaching and learning in the classroom. The target group consisted of thirty-five new lecturers from different disciplines and three staff developers who participated in a year long academic orientation program. Most of the lecturers had taught for at least six months at the technikon. The main approach and methodology used was action research. Data were collected by means of evaluation forms, questionnaire, interviews and reflection diaries. The paper aims to report the impact of the new orientation program, lecturers and staff developers' experiences of reflective practice and action research. Implications of the action research on the design of future academic staff development programs are reported. Suggestions and recommendations on the implementation of action research as a tool for assisting educators in improving their practice are given.

1. Introduction

Higher education sector, just like any other commercial company, wants to assure quality in all its activities. It is much easier to develop good visions missions and goals, but much more difficult to put objectives into practice and outcomes within many teaching and learning organizations. The technikon find itself in a situation where the quality of teaching and learning is not satisfactory. Zuber-Skerrit (1992) argued that if higher education institutions want to achieve goals on critical attitudes, research into teaching, accountability, self-evaluation and professionalism, the best approach would be to use action research. One other best way of improving the situation is to ensure that the professional development programs in place, lead to the improvement of teaching and learning in the classroom.

Action research provides a useful method of carrying out a classroom-based research. It is also an important approach to use in professional development programs. As a means of professional development, action research help the educators and academic development
practitioners to develop the skills of careful observation and critical reflection on their practices with a view of improving teaching and learning. The approach used in action research can usefully be applied to many aspects of classroom practice such as curriculum development, teaching and learning methods, strategies and assessment (Kemmis & Mc Taggart, 1988; Zuber-Skerritt, 1993 and Hopkins, 1993).

Previously, it was difficult to evaluate the positive impact of the development program on lecturers and teaching and learning practice due to lack of real ‘action’ taken by the lecturers who participated in the staff development programs.

The previous academic staff orientation program did not incorporate the reflective practice model. The program did not bring any significant change or transformation of teaching and learning practices. In June 2000, the staff developers reflected on the approach used in the previous orientation program. The program was improved by introducing learner centered teaching strategies and critical reflective practice.

2. Literature review on reflective practice and action research

There is wealth of theory-practice information published on reflective practice and action research in the classroom. However, there very little has been published about the impact of the approach on in improving teaching and learning in higher education. Kemmis and Mc Taggart (1988) argued that improving education means changing people., their ideas, activities and their social relationships. Changing people is difficult, especially if people are treated as the object of other people’s plans. Many people dislike top-down type of training approaches.

The traditional staff development programs, such as the orientation workshops, were perceived by some educators as some kind of a forced change and therefore did not produce any good outcomes. Improving teaching and learning requires a collaborative effort of all stakeholders. Kemmis and McTaggart (1988) further argue that the aim of collaborative action research in education is to establish groups of knowing subjects committed to changing themselves and, by so doing changing their educational work. This type of research also helps people to become more conscious and critical of their practices and the processes of change.

"Classroom research provide teachers with an opportunity to look critically at their own classrooms, mainly for the purpose of improving their teaching and quality of education in their schools (Hopkins, 1993)".

The work of Kemmis and McTaggart, Zuber-Skerritt and others influenced the development of the new orientation program, especially the introduction of the module on action learning and research.

3. The aim of the project

The aim of the project was two fold. To improve the impact of orientation program and to give lecturers an opportunity to reflect on their current and past practices. Our expectations were that the lecturers will learn about the different roles of an academic and to use reflective practice to bring change in the classroom. Each lecturer was expected to embark on a classroom based action research and to report on their experiences of the process and the changes the project has brought into their teaching practice.
Why was action research approach used in this project?

Action research has been found theoretically and practically to be a very useful and meaningful approach and technique to help people reflect and transform their practices. Zuber-Skerritt (1993) described situations where people reflect and improve, gather lots of data, make multilateral decisions, collaborate, self reflect, self evaluate, learning by making mistakes among others as situations in which action research is occurring. Therefore, professional development programs and courses should be designed to make people reflect and improve their own work.

Previous orientation program

The main purpose of the old program was to sensitize and inform staff about change and transformation in higher education, teaching and learning methods, motivation to improve their classroom practice. However, due to institutional policies and staff’s low morale and lack of real action, it was impossible to ensure that the new strategies and methodologies learned in the workshops were implemented in the classroom. The academic development team (staff developers) made use of reflective practice and action learning processes to analyse the old program. A new program was developed.

4. Research design

The research design and planning was based on the theoretical frameworks and models on action research, classroom research and teaching professionalism developed by Zuber-Skerritt (1992 & 1993) and Kemmis & McTaggart, (1988).

The action Research Plan

1. The staff developers critically reflected on teaching and learning quality within the institution and the impact of previous orientation programs
2. Reconstruction of the new orientation program to include modules on action learning and research in professional development
3. Implementation of the new program

3.1 Development of the thematic concerns by the lecturers

2. Development of collaborative mini research projects
3. Follow up sessions and monitoring

4. Data collection

Workshop evaluation forms

Questionnaire

Reflection dairy

Interviews

Thirty-five lecturers participated in the orientation program. This group constituted a bigger action learning set as indicated in figure 1. Lecturers who shared similar concerns also established smaller subsets.
Development of the thematic concern.

The thematic concern emanated from the wish to improve teaching and learning at the institution. All participants shared the main concern. This thematic concern was too broad and would require research into many areas of teaching and learning. Through rigorous reflections, the action group identified smaller issues that were manageable.

The staff developers’ main concern was the poor impact of previous staff development programs on teaching and learning within the institution. The lecturers concerns were about dissatisfaction with the students’ general performance in assignments, tests and exams. Upon reflections on their practice regarding student performance, the lecturers identified three factors that were believed to have contributed towards poor student performance. The factors identified were teaching and learning styles, assessment and organization of learning. These themes were developed into sub themes for action research.

Three action-learning subsets, based on the latter three thematic concerns were established. The subsets linked with the big set according to Fig. 1 below.

Fig.1: The different action research sets constituting the orientation program action group

Orientation workshops.

The five-day orientation workshop program was presented in a formal and informal way. It consisted of presentations and practical work in which interactive participation was encouraged. The follow up workshops, held once every month, were highly informal. These meetings were designed to offer support, and to share experiences of the process of change and the personal reflections. The training module on action learning and research was presented during the last two days of the weeklong initial staff orientation workshop at the beginning of the semester 2, in July 2000. The last two days of the workshop was dedicated to the development of the action research thematic concern. The role of the staff developer was to provide action research technical skills (where needed), review the action research process and to make sure that the group collaborated and cooperated effectively. The action learning sets were encouraged to talk about their reflections, problems and challenges they encountered on their projects. Short notes, observations and reflections of the day were noted in the reflection dairy. At the end of every session, the lecturers completed questionnaires to evaluate the orientation program. The staff developers met at the end of every meeting to strategize about the next meeting.

Questionnaires

Open-ended questionnaires were administered at the end of July 2001. The responses from lecturers were poor, only four were returned. A follow up informal meeting revealed that lecturers were overworked and thus ignored the questionnaire.
Interviews

Interviews were conducted with three lecturers. One lecturer preferred to submit an in-depth written report rather than be interviewed. In the interviews, the facilitator/researcher elicited lecturers perceptions of the good and bad staff development programs, their experiences on the processes of action learning and research while conducting mini projects and the impact of the development program in their teaching practice. Each interview was summarized soon after the session and participants were asked to confirm or amend the summary before the start of the next interviews. Each interview session was a learning opportunity for me. The transcripts were summarized and classified according to the categories mentioned in section 5.

5. RESEARCH FINDINGS

The findings are based on the analysis of group discussion observations, workshops evaluation, reflection reports and interviews. Findings are reported under three main categories:

1. Implementation of mini-action research projects
2. Evaluation and impact of the entire orientation program
3. Suggestions for improvement
4. Reflections on the impact of reflective practice

1. Implementation of mini-AR projects

Only four (4) lecturers at this stage, produced meaningful results from their classroom mini action projects. Majority did not make any significant changes in their classrooms. However, they reported that the process inspired positive attitude towards teaching, assessment and student learning guides. Some of the reasons for the latter group not to succeed with their projects are reported under the section, on reflections on the implementation of action research and the difficulties encountered.

Case study 1: Biomedical technology lecturer 1

Her concern was that students did not seem to understand everything that she taught them through the traditional lectures. Students performed badly in assignments, tests and examinations. Her thematic concern was to improve teaching and learning styles in view of improving learning in her class. She did this by introducing self-directed learning through action learning, which she personally called "independence through action learning". Her teaching style changed from lecture-based to student-centered learning that emphasized cooperative and self-directed learning. She played the role of the facilitator while the students took the entire learning process into their hands. Though at the beginning the students were negative and resistant towards the new approach, she encouraged them until they discovered through personal reflections, that the strategy brought meaningful learning to them.
She reported that the general performance of students in her improved. Students became responsible for their own learning.

Some examples of the lecturer and student extracts as a proof of improved teaching and learning practices.

Lecturer: "I cannot believe the improvement the action research project has brought into my classroom. My students are now doing very well. I used to hate my class so much because my efforts of hard work in preparing good lectures use to end up in a thrush bin. Now I really love my class."

Student:

"Mrs. M.., when I first got into your class I was bored I must say, the reason being, I could not really understand what this calculation and statistics is all about and worst of all I hated mathematics in school. But you proved all that wrong to me. I developed an attitude towards the subject. You were dedicated; you showed love to your students (us) and to the subject. You did what ever you could. You have made a difference in my life and in the way I look at the course as a whole..........

You have worked really hard this short time we’ve met and I must conclude "The ball is in the court, we have to play it now."

(This paragraph was copied from the letter the student wrote to the lecturer at the end of semester 1, 2001.)

Case study 2: Public management lecturer

His thematic concern was on teaching and learning styles that could train students to become critical thinkers. He used the traditional lecture in class and the students rote learned everything without understanding. He used real life activities to teach public management, in this case voter education prior to the December 2000 local government elections. His students designed and developed a voter education program together with the IEC (independent electoral commission) officials. Though the students could not complete the project due to problems beyond their control, their experience of the process of action learning provided them with good academic literacy skills to cope with their work.

Outcome of the project: Students learning styles improved. They stopped memorizing and regurgitating information developed critical thinking skills and thus improved their conceptual understanding.

Lecturer: "The orientation program, especially the action learning and research module benefited me a lot. I had to judge myself. What I am doing in class is now influenced by the principles of action learning. The performance of my students has improved a lot".
Case study 3: Civil Engineering lecturer

This lecturer used the top-down approach to design the project. The project failed due to, according to him, poor participation from students. He intended to introduce project-based learning. This was a big project to tackle as an individual lecturer and therefore he encountered problems. Though he blamed students and colleagues for his failure, I found that he was not motivated enough to carry the project. He complained about workload, poor cooperation with colleagues and students and also lack of relevant infrastructure for students to do projects. His project was very expensive for the department and faculty to cope with financially. However, besides all the obstacles he met in trying to get the project going, he indicated that the action learning principles and processes still kept his motivation up and has planned to embark on another manageable project.

Case study 4: Biomedical technology lecturer 2.

This lecturer refused to be interviewed due to lack of time. He preferred to submit a comprehensive reflection report. His thematic concern was about the use of formative assessment practices at the technikon. His project intended to reflect on the use of diagnostic tests, critical analysis of student answers in tests and student feedback system as ways of informing his teaching practice and subsequently improving teaching and learning. The outcome of the project was satisfactory in terms of improving student performance.

Lecturer: "By using different methods of instruction and assessment has put me and my students in a position of being able to solve problems of any kind shaped in any manner."

2. Evaluation and impact of the entire orientation program

All participants indicated that the module and learning activities on Action learning and research in the orientation program has provided them with a mirror to reflect on their practice. This module was the most highly rated in the evaluation of the entire program

Lecturers’ comments

Very profitable and excellent. Keep it up

Extend this good program to other lecturers and heads of the academic departments and other top management personnel

Workshop materials can be applied immediately

Need follow up workshops to evaluate progress from our side

Practical work must be emphasized more and more

Personal goals were achieved – for me it was really a necessity

Big eye opener got me more motivated
Outstanding I have learned more than I thought I know for all my professional life

Sell the process

Much wiser, clever and confident to instill change in my environment and teaching

Very informative and well researched

The sessions have opened variable paths that are to be adopted and improved during my stay at the institution and my life as a professional

More confident to start other research projects

Table 1: Lecturers feedback on the impact of the orientation program workshops
(open ended questions)

Participation in the action based orientation program improved the staff motivation and morale, even though some staff could not finish their projects on time. The process, through self-reflection and collaboration has contributed to the development of a positive attitude towards teaching at the technikon.

The lecturers said:

Lecturer 1: "Yes, especially action learning and research. I had to judge myself, what I am doing in class is now influenced by action research principles. The performance of my students has improved a lot."

Lecturer 2: "I changed from individualistic working style to working with the bigger action set (all orientation participants) provided an opportunity to engage and share ideas with many colleagues"

Lecturer 3: "It improved quality of my classroom practice"

6. REFLECTIONS

A. STAFF DEVELOPER

The action research approach has provided the staff developers with an opportunity to evaluate and improve the impact of the program on teaching and learning practice

This project has allowed me an opportunity to reflect on the objectives and outcomes of staff development programs. I feel that the project was a valuable exercise. There were incidences or mini-projects that yielded good results on teaching and learning in the classroom. Two lecturers improved their teaching styles, which in turn improved students’ learning styles and thus performance.
Post-program discussions with colleagues made us consider continuing with the action learning and research model in all our future staff development programs, especially curriculum development, which seems to be a "nightmare" to many higher education lecturers at the moment.

The lecturers found the action research model developed by Zuber-Skerritt too difficult to use to plan the projects. The difficulties encountered with the model led to the frustrations and delayed the project progress. The lecturers took four months to develop action plans for their miniprojects. I became very frustrated by the slow progress, but however, that served as a challenge for me to simplify the model for the lecturers. The simplified model was adopted from the model used for schoolteacher development by the Gauteng Education Department (2000). The model was simplified to allow even the non-educational researcher to understand and use it.

The identification of the thematic concern was a difficult at the beginning. There were too many issues that lecturers wanted to address within the system. Though it was not staff developers’ intention to direct the group into a specific area, nevertheless it was done. It is against the principles of action learning to provide action sets with a theme. This is normally seen as a top down approach.

During the interviews, lecturers were enthusiastic to talk about the changes they have brought into their practice. Examples of students’ attestations were displayed, indicating the lecturer’s joy of being able to bring some positive change into other people’s lives.

As a staff developer, I learned that lecturers want to be involved in the planning of all staff development activities. Therefore, participatory needs analysis with all stakeholders is very important for the success of the professional development programs. Lecturers tend to take responsibility for their own development.

B. LECTURERS

The following comments were extracted from the program evaluation forms and the reflection diaries.

- The classroom activities have become more student-centered.
- Improving learning:
- Letting the students solve problems on their own
- Textbook method is a wrong approach to teaching and learning. Leads to recipe learning. This is completely against outcomes based education principles. Students need to be taught the techniques of how to survive in a learning environment. This can only be done through action learning and research. “You cannot build a person by giving him fish everyday….rather teach him the techniques of fishing”
- It is important to use action learning because the manner to approach things changes at all times. Change needs dedication.
- Action learning process exposes you to different methods of instruction and assessment – this is a never ending game on daily basis “helping to build the mind of an intellectual cannot last for eight hours, but it is a continuous process just like in the action research cycle.
- Using reflective practice helps the teacher to be honest and transparent with students about assessment students on assessment
- The change from using traditional teaching approaches to learner centered and self-directed learning brought meaningful learning
Lecturer 1: "Students stopped regurgitating what is in the book"

Lecturer 2: "Should encourage older staff members in the departments to participate actively in action learning research activities in order to harmonise new approaches and reflections in the departments"

Lecturer 1: "Old horses are not familiar with innovative way of doing things therefore it creates conflict. Those people who have not been exposed to AI and AR are problematic in the department. They influences students not to accept new ways of learning. They delay development and make it difficult for us to enjoy teaching and learning."

7. WHAT DID NOT GO WELL?

Action research can be a powerful approach to be used in facilitating change but the process and the action research planning spiral model (figure 8) may cumbersome and tedious to implement. The participants experienced obstacles during the different phases of the project. The following obstacles impacted negatively on the attainment of project goals:

- Poor choice of stakeholders (non-committed)
- Communication problems with stakeholders
- Difficulties in controlling the stakeholders
- Poor timing of the projects
- The action set missing the focus of the project
- Prolonged planning phases
- Lack of resources
- Some students and lecturers
- Lack of time to attend staff development activities

Lecturer 5: "It is much better to start new innovations with level 1 students. They are still curious to know and work hard as compared to older students. Older students find it hard to change old ways of learning"

Lecturer 6: "Older students and staff at TNG are not proud of their institution, so they hinder innovation and creativity….they do not see or view the institution as themselves"

8. CONCLUSION

The new format of the orientation (professional development) program worked exceptionally well, although the staff developers took a very big calculated risk in including the mini research projects in the extended program. We were overjoyed by the positive responses and the motivation showed by the group. This experiences and attitude provided a very conducive learning environment for both the staff developer and the lecturers.

The action learning and research process provided the participants with the opportunity not to be confident in admitting and sharing their shortcomings.
The power of action learning and research processes do not only help bring change into classroom practices but also in this project go beyond professional development. It brought people closer to each other and improved trust and cooperation among colleagues. The duties of staff developers have also extended to providing counseling on private affairs that may impact negatively on teaching and learning issues. Most of the participants now see staff developers as change agents on matters that affect their teaching work and private life, especially dealing with difficult and painful consequences of transformation of higher education in South Africa.

One of the important unexpected outcomes of the project was the development of the teaching portfolios. Initially, lecturers were not interested in the portfolio and some regarded it as a policing tool but right now, the attitude has changed. Lecturers have recognized the importance of portfolios as developmental and growth tools that can be used for promotion and appraisal purposes.

REFERENCES


