Towards improving content and instruction of the ‘TESOL/TEFL for Special Needs’ course: an action research study

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Towards improving content and instruction of the ‘TESOL/TEFL for Special Needs’ course: an action research study

Mahmoud M. S. Abdallah

Abstract
Action research (AR) – as a participatory, problem-oriented methodology – has been employed recently in Egypt to resolve complicated classroom and learning problems, and provide context-based solutions. Simultaneously, new ‘special education’ courses have been included recently in the university bylaws of Egyptian colleges of education. This imposes challenges, especially on course design and content selection. The present study therefore aimed at negotiating and improving the structure and delivery of a new special education language-learning course entitled ‘TESOL/TEFL for Special Needs’ taught to English majors (English as a foreign language [EFL] student-teachers) at Assiut University College of Education, and reaching a final framework. Therefore, an AR methodology of two cycles was employed with two different groups of English majors throughout two successive semesters during the academic year 2012/13: the first group included 106 junior general-section EFL student-teachers (first semester, 2012); and the second group consisted of 51 senior primary-stage EFL student-teachers (second semester, 2013). Data collection tools were used for both formative and summative evaluation purposes, and thus varied both at the initial stage and during iterations. They included questionnaires, online diaries, semi-structured interviews, final feedback reports and follow-up logs. The two AR cycles resulted in a final framework of course structure/content along with some suggestions and guidelines on how to deliver it. Moreover, some implications for teaching EFL to students with special educational needs as well as some conclusions related to using AR in Egypt to resolve many teaching/learning problems were presented.

Background and research problem
Action research (AR) studies are still rare in Egypt despite disappointment with results from experimental research designs as well as current orientation towards improving educational practices by resolving realistic learning/teaching problems. There should be more research studies to reflect this adoption of AR as a practice-oriented methodology. More specifically, novice researchers need to become well acquainted with procedures followed to resolve real classroom problems.
The Action Research for Accredited Schools project launched recently in Egypt attracted the attention of many researchers and practitioners. The few researchers carrying out AR projects were invited to share their ideas and experience with others. One of the major consequences of the project was that some Egyptian colleges of education started to introduce AR methodology by holding research seminars and workshops at the academic departments to give international samples and examples from the field.

However, and in spite of these efforts to introduce AR as a research method and framework, very few studies have been conducted recently by some Egyptian researchers and practitioners with different orientations (for example, Ahmad 2012; El-Deghaidy 2012; El-Dib 2007; Kostandy 2013). For example, while El-Dib (2007) investigated levels of reflection in AR, El-Deghaidy (2012) studied AR from an educational sustainable development perspective through which AR experiences with some Egyptian science teachers were reported.

Moreover, recognising the important role of teachers as agents of change, Kostandy (2013) conducted a case study that explored the possibility of adopting AR by teachers as a means for school improvement in Egypt. Also, in a pre-service language teacher education context, Ahmad (2012) dealt with improving the teaching skills for Egyptian English as a foreign language (EFL) student-teachers through pedagogical AR projects.

A main goal of AR is to build bridges between school and university (especially colleges of education) in the field of teacher professional development (Cohen, Manion, and Morrison 2007). As a practical problem-oriented research endeavour, AR allows educators to learn about their own instructional practices, and hence promotes collaborative inquiry, reflection and dialogue (Parsons and Brown 2002).

A review of the literature reveals the use of AR in a variety of learning contexts for many different educational purposes, such as: curriculum development and course design (for example, Haystead 2010; Riding, Fowell, and Levy 1995); implementing a new instructional strategy (for example, Haystead 2010; Kenney and Newcombe 2011); professional development (for example, El-Deghaidy 2012; Smeets and Ponte 2009; Snyder 2012); and solving persistent school and classroom problems (for example, Kostandy 2013; Webb-Landman 2012).

From a curriculum development perspective – a main focus of this study – AR procedures are quite adequate. For example, a curriculum design-oriented AR methodology was employed by Riding, Fowell, and Levy (1995) for the development of an introductory undergraduate module on the use of computer-mediated communications. Traditional teaching techniques often fail to encourage ‘deep’ learning. Therefore, strategies to develop transferable skills in areas such as thinking and learning, communication, group work and information management were intended to prepare students for work outside their academic contexts.

In an undergraduate course, Kenney and Newcombe (2011) employed AR to investigate the implementation of blended learning as an alternative instructional delivery to promote active student involvement, and hence more effective learning. They emphasised the idea of developing a ‘collaborative community of learners’ to improve course delivery, viewing AR as a systematic way of engaging in their reflective process while measuring the effects of their new instructional method. More specifically, AR gave the instructor valuable information to use for modifying the course design and implementation. Also, Groves and Zemel (2000) conducted an AR study to assess and develop technology use by faculty members in a large public university, where perceived barriers and needs for technology use were also
reported. Within a problem-solving framework, Dods (1997) employed AR to evaluate problem-based learning, the traditional lecture, and a combination of problem-based learning and lecture in an elective biochemistry course at a secondary school for gifted students.

Caring for students with special learning needs has become a standard global practice under the umbrella of ‘special education’ – one of the most important academic areas in education gaining ground (Abdallah 2011). Like normal students, students with special educational needs (e.g. physical and mental disabilities, learning difficulties, language and communication problems) have the right to learn and succeed (Abdallah 2010; Dopitová 2007).

Special education thus concerns educating students with special needs in a way that addresses their individual differences and needs. Ideally, this process involves the individually planned and systematically monitored arrangement of teaching procedures, adapted equipment, accessible settings and other interventions designed to help those learners to achieve a higher level of self-sufficiency and success in school and community than would be available if they were only given access to a typical classroom education (Carter, Prater, and Dyches 2009; National Council on Disability 1994).

Early on, Ensign (1999) examined the use of an extensive experiential assignment to introduce pre-service elementary teachers to the field of special education. The study documented the use of 58 students’ experiences in a difficult learning situation and investigated the transference of this learning experience to course content on individualising a programme for special needs students.

More recently, Smeets and Ponte’s (2009) study was one of the few that connected AR with special educational needs. The study investigated the impact of AR carried out by teachers in a special school in the context of an in-service course in special educational needs, recommending AR as a strategy for leadership and professional development.

Some previous studies indicate that collaborative course development – a main practice employed in this study – has become a preferred teaching practice to reach quality standards (for example, Campbell, Schwier, and Kenny 2007; Chao, Saj, and Hamilton 2010; Ensign 1999; Hokanson, Miller, and Hooper 2008). Current trends in course development involve transformation of the designer’s role to fit the shifting needs of higher education and innovations. Thus, instructors and designers are viewed as change agents within a team-based collaborative course-development process that involves reflective practices, and which might need evaluation and AR studies.

Recently, Egyptian colleges of education have incorporated special education courses at the undergraduate stage. The new internal regulations/bylaws stipulated by Assiut University College of Education (AUCOE), which was launched in the academic year 2009/10, integrated a new methodology course with a special education focus. For EFL student-teachers, the course was entitled ‘Teaching English as a Foreign Language to Students with Special Educational Needs’ or ‘TESOL/TEFL for Special Needs Students’.

The broad goal of the course was thus to acquaint EFL student-teachers with the concept of special education, and hence the methods, strategies and/or techniques to be used for teaching EFL to those categories of learners with specific learning disabilities/handicaps.

Unfortunately, although the course specifications include clear intended learning outcomes (ILOs) to be accomplished by student-teachers, there are no guidelines regarding the specific content to be included in the course – especially as far as the TEFL arena is concerned. The problem was significant because the area of ‘special education’ in general, and ‘special
language-learning needs’ in particular, is really wide. This new area is definitely more complicated and advanced in scope than the general TESOL/TEFL methodology course that EFL student-teachers have been familiar with. In other words, there is a wide range of topics that could be included.

The researcher – while working as a coordinator of the English-language programme new course specifications – assumed that this new course was a variation of the general TESOL/TEFL Methodology course. The challenge was to suggest a content that would link both the ‘language teaching methodology’ focus with the ‘special education’ focus. This was considered an emergent complicated problem that needed a participatory AR study to resolve since no ready clear-cut solutions were available.

A preliminary online investigation of possible areas and topics to be taught through this course resulted in many categories, for example: introducing the field of ‘special education’; language learners with special educational needs; teaching strategies/techniques useful for special educational needs students; and teaching different language skills to special educational needs students.

Also, while teaching this course, the researcher experienced many problems during course materials selection and preparation. Since the course was new, no already used materials existed that could help. This was the main motive for conducting this AR study.

The main objective of this AR study was therefore to improve structure and delivery of the new ‘TESOL/TEFL for Special Needs Students’ course to EFL student-teachers by experimenting with the target learning context to reach specific guidelines to be used for designing this special education course. This involves accomplishing the following minor objectives:

1. Introducing AR methodology as a staff professional development endeavour into the AUCOE context. Cohen, Manion, and Morrison (2007) argue that professional development of teachers is a significant feature of AR since it is sometimes viewed as a ‘situated learning’ practice (i.e. learning in the workplace and about the workplace) (Collins and Duguid 1989).

2. Developing and improving the structure and content of the ‘TESOL/TEFL for Special Needs Students’ course taught to EFL student-teachers.

3. Reaching some practical guidelines and suggestions into how to teach the target course to EFL student-teachers.

Based on these objectives, the following research questions were formulated:

1. How can AR be used as staff professional development strategy in Egypt, especially at AUCOE?

2. What is the most appropriate form (i.e. structure and contents) that the ‘TESOL/TEFL for Special Needs Students’ course taught to EFL student-teachers at AUCOE should take in the light of its main objectives?

3. Which guidelines and suggestions are needed to inform the process of delivering the target course to EFL student-teachers?

Methodology

An AR methodology was employed as the main research framework guiding this study. The main idea of AR is that a practitioner in a certain educational institution (e.g. a researcher, a
school teacher or a teaching staff member at university) notices, while teaching, a specific teaching/learning problem (e.g. lack of students’ motivation, a new course that needs improvement, a skill that learners need to master to meet a specific goal, etc.). She/he gathers data and suggests a specific design or intervention to resolve the problem. Then she/he has to experiment with the suggested design, and improve it throughout a prototyping stage that involves many cycles (at least two or three) of planning, designing, intervention, evaluation/assessment and re-designing.

Sowa (2009) and McAteer (2013) illustrated some distinctive features of AR as a reflective, collaborative, critical and problem-oriented methodology. Accordingly, AR stands as a critical collaborative investigation conducted by reflective practitioners who are self-evaluative in their practice, and engaged in problem-solving and continuing professional development in a participative and collaborative fashion. Thus, AR is participative in that those involved (co-participants) contribute equally to the inquiry, and collaborative in that the researcher is not an expert doing research from an external perspective, but a partner working with and for those affected by the problem and the way in which it is tackled.

For language teachers, AR is used to improve their pedagogical practices by deepening understanding of students’ learning, experimenting with a variety of methodological options, and critically examining and reflecting on activities and practices with a view to taking initiatives (Sowa 2009).

Accordingly, the main reasons for employing an AR methodology were as follows: being a practitioner, the researcher sought to address an emergent need and resolve a teaching/learning problem (i.e. selecting the best content for a newly stipulated course that neither the instructor nor the students had been familiar with); developing and improving course design, structure and delivery required a developmental research approach; the investigated problem was quite complicated (i.e. there were no particular standards for content selection which could be consulted for guidance; no previously designed courses would help; the area of ‘special education and language-learning needs’ was quite broad and too difficult for our student-teachers; and the internal bylaws did not provide enough details on the new course), and thus collaborative efforts were needed to resolve the ambiguity of the new course; the study links teaching/learning theory with real classroom practices; the proposed study is part of the researcher’s professional development, and thus involves reflection and self-evaluation; and the research process is a participatory, collaborative endeavour that involves targeting student-teachers as co-participants (see also Cohen, Manion, and Morrison 2007). Based on this AR methodology – which is eclectic in nature – a group of quantitative and qualitative data-collection techniques were employed: questionnaires, students’ online learning diaries, instructor’s teaching diary, follow-up logs, content analysis of student-teachers’ (co-participants’) reflections (written feedback), semi-structured interviews, informal observations and final reports by co-participants.

Procedures

As a preliminary stage, the literature on AR – especially early accounts which outline its original purpose and procedures – was reviewed to come to grips with the specific stages and steps to address the problem at hand, and thus realise research objectives. Accordingly, the following conclusion was made – AR involves staging research activities as the following:
identify a problem or question; carry out an action; observe and reflect on the outcome; and plan another action (Lewin 1946).

Based on the pre-determined general learning objectives and outcomes of the course that the researcher suggested while doing course specifications (see Table 1), some initial guidelines were proposed to be experimented with EFL student-teachers. These preliminary guidelines include the following:

1. Devoting the first chapter to introducing the concept of ‘special education’ to EFL student-teachers and suggesting the rationale of why we should care for students with special educational needs.
2. Providing student-teachers with some key readings in the field from which they can identify some language-learning problems and how to intervene to resolve them.
3. Devoting a section for introducing a range of methods, options and techniques for teaching the English language to students experiencing learning difficulties (e.g. low achievers and dyslexic learners).
4. Asking student-teachers to conduct research work on specific language-learning problems and how to resolve them.
5. Including some stimulating questions at the end of each chapter/section to help student-teachers with establishing focus while revising content.

Throughout a prototyping process, the content was continuously developed based on feedback from student-teachers and online instructional diaries. This stage included cycles of (see Figure 1): planning and designing, acting/intervening, collecting data and observing.

<table>
<thead>
<tr>
<th>Table 1. Aims of the language special education course.</th>
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</thead>
<tbody>
<tr>
<td>By the end of the course, EFL student teachers are expected to be able to:</td>
</tr>
<tr>
<td>- Identify the meaning of ‘special education’ and the current trends used for teaching English to students with special needs</td>
</tr>
<tr>
<td>- Recognise the characteristics and manifestations which indicate the existence of learning difficulties within language learners</td>
</tr>
<tr>
<td>- Understand the wide range of options that can be employed inside the language classroom for dealing with low-level language learners</td>
</tr>
<tr>
<td>- Use some techniques for dealing with gifted/talented language learners</td>
</tr>
<tr>
<td>- Identify the modern language teaching methods used for dealing with students with special needs (e.g. active learning, multiple intelligence-based instruction, learning style-based language learning, computer-assisted language learning and self-paced learning)</td>
</tr>
</tbody>
</table>

**Figure 1.** Action research cycles. Source: Riding, Fowell, and Levy (1995).
for evidence, reflection and assessment (editing, revising, re-designing and following further procedures). Although the figure shows the possibility of conducting three iterations (cycles), this research study is limited to two cycles with the possibility of conducting a third in future studies with the same purposes (see Figure 1).

Consistent with the cycles diagram illustrated in Figure 1, AR includes some specific steps and procedures followed within each cycle, which can be summarised as shown in Figures 1 and 2. It is clear from these figures that teachers and practitioners employing AR formulate their research questions/objectives, gather and analyse data, and then go on to carry out actions for improvement and evaluate them. On the basis of their evaluations (e.g. reflections), they can then adjust their research questions and actions for improvement (see also Smeets and Ponte 2009).

The course was taught to two different groups of EFL student-teachers throughout two successive semesters during the academic year 2012/13: the first group (106 junior general English student-teachers) in the first semester, and the second group (51 senior primary-stage English student-teachers) in the second semester.

The first group were asked to write down their own expectations of what they would study in this special education course. They were also asked to keep an online (learning) diary to jot down their own learning experience during course administration, which they would need to refer to while writing down their feedback reports. They were involved in an online community of practice on Facebook to share their ideas, reflections, learning resources and useful relevant videos, and to support each other. From the beginning, the content of the first chapter was revised many times based on some classroom observations by the researcher (instructor) triangulated with informal observations made by two colleagues who acted as external observers and formative feedback (written in personal diaries) by co-participants after the first and second lectures.

As co-participants, EFL student-teachers (first group) were asked to individually compose a short research paper (from four to 10 A4 pages) in which they were required to explore the different language-learning methods and strategies employed with students with special

![Figure 2. Action research techniques and procedures.](image-url)
needs. To make things easy for them, they were asked to submit their papers either as hard copies, CDs or as online documents depending on their convenience. Participants’ research papers were qualitatively reviewed and analysed to produce some useful guidelines to be used by instructors in the future.

Further, semi-structured interviews were conducted with participants as a final assessment procedure to assess the course delivery process from their viewpoints. Interviews included questions such as the following:

1. Did you enjoy the course? Why?
2. What was the section/chapter you liked the most?
3. What are the good points?
4. What are the weak points?
5. If you were in my place, how would you teach this new course?
6. What are the topics/items/issues that you wished to find there in the course?

Briefly, the following procedures were conducted during the first cycle:

1. Based on the main objective of developing the structure and content of the target course, a number of minor objectives were suggested to guide this cycle. For instance, a key objective was to produce a preliminary framework of course structure and content to be negotiated in further cycles. Also, reflective and meaningful learning by co-participants was intended as an outcome of their engagement and interactions.
2. Evaluation and self-assessment strategies involved a range of ongoing student-teachers’ feedback mechanisms and tutor debriefings (e.g. questionnaires, diaries, reports, informal observations and follow-up logs) that were employed to regularly collect data during the process. This was intended to ease modification of the initial framework experimented with co-participants. Reflecting upon the results of the evaluation would prepare for modifying practice for the second implementation or cycle of AR.

More specifically, a follow-up log was employed as a tracking tool for identifying and monitoring students’ progress over time. In particular, the log was employed to ensure that all action items have been properly assigned by the agreed-upon due date (e.g. by the end of the cycle). Action items included the following:

1. Submitting feedback on a weekly basis.
2. Contributing posts and/or comments to the online community (Facebook group) on a daily basis.
3. Face-to-face group meetings for discussion.
4. Submitting suggestions/remarks to the course instructor for improving the course.

Simultaneously, informal observations were employed with the assistance of two colleagues specialised in TESOL/TEFL. This method was triangulated with the other assessment tools. An external opinion by others was necessary to add strength and credibility to the prototyping process. Thus, the two observers were briefed on the main research purpose, and were asked to spend at least 15 minutes during the lectures and 20 minutes on the online community to write their comments on the whole process in the light of some standards, including:
(1) students’ attitudes towards the course;
(2) rhythms and types of students’ interactions (as co-participants);
(3) the instructor’s teaching methods; and
(4) the appropriacy of the assessment tools employed with students.

Moving from the first cycle to the second was based on some criteria represented as:

(1) the degree to which co-participants were happy with the initial design of the course based on quantitative results of the questionnaire;
(2) the achievement of the main objectives of the course;
(3) co-participants’ personal accounts in the semi-structured interviews;
(4) co-participants interaction levels (both face to face and online), especially as reported by the notes of external observers; and
(5) co-participants’ reports on the utility of the course and aspects that need improvement.

SPSS analysis of the questionnaire (see Table 2) indicated, through descriptive statistics, that more than 50% (i.e. more than 53) of the co-participants \( n = 106/2 = 53 \) were not satisfied with the course content/structure or the methods used for delivering it. For example, frequency indicates that 65–75% of co-participants had problems with understanding the content, and its logical sequence (e.g. no reading list was there; the introductory section was insufficient; and certain parts needed further details to clarify them). In their online diaries and reports, they reported many problems and suggested many ways of improving the content.

This formative assessment was followed in the second cycle that was conducted with the second group during the second semester of the academic year 2012/13. EFL student-teachers in this group were exposed to a revised structure and content based on feedback and insights obtained from the first cycle. More specifically, the content was revised as follows:

(1) A more detailed introductory chapter on ‘Special Education’ was included to shed light on the rationale of teaching students with special educational needs, and the different global approaches used for dealing with those categories.

(2) The second chapter included more details on language-learning needs, and the specific problems that language learners with special needs might experience. At the end of the chapter, student-teachers were asked to write a report (as an assignment) on a specific language-learning problem of interest and the best ways/techniques that might be used to resolve it.

(3) Because of participants’ interest in – and background on – multiple intelligence-based instruction, a separate chapter was devoted to this, especially in terms of its philosophy and how it could address diverse types of learners.

(4) Questions at the end of each chapter were modified to address a wide range of issues tackled and also to involve co-participants in more critical and creative thinking processes.

(5) A thorough reading list (including many online resources) was placed at the end of the course to enable learners to refer to strong and relevant references in the area.

The second cycle almost followed the same steps and procedures of the first cycle, especially asking participants to:
### Table 2. Feedback questionnaire for measuring co-participants' satisfaction with course content.

<table>
<thead>
<tr>
<th>Number</th>
<th>Statement</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>1. Selected topics</strong></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>I feel that the topics I've studied are interesting</td>
<td>+</td>
</tr>
<tr>
<td>1.2</td>
<td>I'm able to understand these new special education topics</td>
<td>+</td>
</tr>
<tr>
<td>1.3</td>
<td>I find the topics consistent with the course aims</td>
<td>+</td>
</tr>
<tr>
<td>1.4</td>
<td>I feel dissatisfied with the way topics were selected</td>
<td>–</td>
</tr>
<tr>
<td>1.5</td>
<td>I find the topics relevant to TESOL/TEFL field</td>
<td>+</td>
</tr>
<tr>
<td>1.6</td>
<td>I feel that some topics are ambiguous and hard to understand</td>
<td>–</td>
</tr>
<tr>
<td>1.7</td>
<td>I feel satisfied with learning all the course topics</td>
<td>+</td>
</tr>
<tr>
<td>1.8</td>
<td>I find the topics motivating, encouraging me to make further reading on</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>them</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>2. Content presentation, style and sequence</strong></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>I regard the content sequence as logical and consistent</td>
<td>+</td>
</tr>
<tr>
<td>2.2</td>
<td>I'm happy with the writing style and format of the content</td>
<td>+</td>
</tr>
<tr>
<td>2.3</td>
<td>I feel it's hard to concentrate and focus while reading through the content</td>
<td>–</td>
</tr>
<tr>
<td>2.4</td>
<td>I can go through the content independently without any external</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>assistance</td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>I feel determined and persistent while performing tasks based on the</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>studied content</td>
<td></td>
</tr>
<tr>
<td>2.6</td>
<td>I feel bored while studying the content of this course</td>
<td>–</td>
</tr>
<tr>
<td>2.7</td>
<td>I like the English language used to convey information throughout the</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>whole course</td>
<td></td>
</tr>
<tr>
<td>2.8</td>
<td>I feel that many stylistic modifications and amendments are needed to</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>make the content digestible</td>
<td></td>
</tr>
<tr>
<td>2.9</td>
<td>I feel able to easily summarise the content and present studied ideas in</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>my own style</td>
<td></td>
</tr>
</tbody>
</table>
(1) write down their expectations of the course;
(2) suggest a valid content to study;
(3) do a short online questionnaire (through SurveyMonkey) (see Table 2);
(4) create a personal reflective diary to record their impressions/suggestions; and
(5) submit their written feedback and reports regularly to the online community.

The questionnaire was used as a confirmatory quantitative data collection tool to record co-participants’ degree of satisfaction with the course content. Using Cronbach’s alpha, questionnaire reliability was found to be 0.81 (which indicates a high degree of internal consistency).

However, co-participants were guided more into regularly reporting their ideas and reflections in their learning diaries. They were directed to work online as a community (Facebook group) to record their ideas and share them with others, and thus continue discussion at their convenience.

To guide and organise their self-reflection (written feedback) while using their online learning diaries, co-participants (in both cycles) were requested to address the following questions:

(1) What are the new things that you’ve learned today?
(2) What are the strong points in the lesson/chapter you’ve studied today?
(3) What are the weak points in the lesson/chapter you’ve studied today?
(4) Which points of improvement that should be done to this lesson/chapter?
(5) What are the aspects/topics that you were expecting to find today, but you haven’t seen today?

Data analysis

The data analysis process included all of the assessment methods/tools in both cycles. For the questionnaire and follow-up logs, a quantitative analysis using SPSS was conducted to reach quantitative evidence that should support the qualitative data obtained (see Table 3). For the online diaries, semi-structured interviews and final reports, a qualitative thematic analysis was conducted; thus, based on recurrent topics/themes, data were visited selectively and flexibly to obtain a comprehensive view of the whole picture. More specifically, shifts were made between those different tools, but within the accounts provided by the same co-participants. This process was facilitated by NVivo software (for qualitative data analysis) in which all participants were included as cases, and thematic coding was carried out through tree nodes that represented both major and minor themes emerging from the data, such as:

1. Student-teachers’ interactions during course delivery
   1.1 Online interactions on Facebook
   1.2 Face-to-face interactions in lectures
2. Organisation of the course content
   2.1 Adequacy of suggested content for each chapter
   2.2 Consistency of course content with the main objectives of the course
For informal observation, which was used as an external objective tool to minimise the researcher’s bias, accounts made by the two observers were gathered and comparatively analysed to identify the observer’s viewpoints with regard to some specific issues related to course delivery (e.g. adequacy, timing, interactions and satisfaction). More specifically, personal observations and accounts were selectively contrasted with the above themes that emerged. Based on these observations, qualitative data emerging from online diaries, semi-structured interviews and feedback reports were revisited, and sometimes specific conclusions were refined accordingly (see Table 3).

Table 3. Main sources of qualitative data obtained and their contribution.

<table>
<thead>
<tr>
<th>Data sources</th>
<th>Functions and contributions to results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-participants’ online diaries and feedback reports</td>
<td>These diaries contributed to the development of the course and the improvement of the chapters taught during lectures. They assisted co-participants with venting their reflections and ideas on their learning and on how to improve the course in the future based on some guidelines. Feedback reports composed by participants within these diaries were sent on Facebook on a weekly basis following each lecture. In these reports, participants were required to cover these aspects: (a) New things learned from the lecture/chapter (b) The face-to-face and online activities (c) Any difficulties encountered (d) Any online communications and activities made independently (e) What they liked or disliked (f) Any aspects of improvement Triangulated with the following sources, these reports provide the main source for evaluating the two iterations</td>
</tr>
<tr>
<td>Short research papers by co-participants (first cycle)</td>
<td>This was an internal academic requirement that would help the researcher – as an instructor – to see how co-participants would explore the different language learning methods and strategies used with special needs students (see ‘Procedures’ section for more details).</td>
</tr>
<tr>
<td>External observation</td>
<td>The main function of the two external observers’ notes was to resolve any potential bias from the researcher (as the course instructor), and hence provide an external (objective) perspective on participants’ interactions, contributions and feedback. The observers’ notes were used as a checklist while analysing the data from other sources within NVivo to ensure objectivity, especially when compared with the participants’ diaries and written feedback reports.</td>
</tr>
<tr>
<td>Semi-structured interviews</td>
<td>These interviews were conducted at the end of the course to obtain participants’ final feedback on the course as a whole including: the good points, the week points, the benefits and the aspects that need to be improved. The results of these interviews were triangulated with the previous sources, mainly with written feedback reports, within NVivo in order to provide final objective and comprehensive results. Perhaps feedback reports were sufficient, but interviewing each student – at least to discuss his/her report – was necessary to achieve deeper understanding</td>
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Results and discussion

This section will present and discuss the obtained results based on the three research questions stated earlier at the end of the ‘Background and research problem’ section.

The first research objective and question – which is a methodological one – related to introducing AR methodology as a staff professional development endeavour into the AUCOE context. This objective has been already accomplished (see ‘Methodology’ section).

Consistent with arguments by McAteer (2013), Riding, Fowell, and Levy (1995) and Pine (2008) on AR as a reflective/developmental research practice, empirical data – external observers’ notes (e.g. ‘Student teachers need to learn how to reflect more on what they are learning or teaching so as to improve it’) triangulated with the researcher’s teaching notes (e.g. ‘While revising my delivery methods and suggesting more appropriate one, I was feeling more self-confident and involved as a teacher’) – indicate that AR is badly needed in Egypt.
in general, and in AUCOE in particular: to build the reflective practitioner (in particular, reflective diaries, follow-up logs and informal observations were part of a reflective, self-assessment process); to make progress in school-wide priorities; to build professional cultures (e.g. cooperation between the researcher and co-participants throughout the process of negotiating and improving the target course design); to provide teachers and administrators with an opportunity to better understand what happens in their learning institutions (i.e. results, including the proposed design, will be displayed to college administrators and shared with staff members); to establish a decision-making cycle that guides instructional planning for the school and individual classrooms; to address and solve complicated problems associated with realistic educational practices at AUCOE (e.g. written feedback from co-participants along with semi-structured interviews indicate their perception of the course design and improvement process as a complex issue); to meet the needs of a increasingly diverse body of learners (e.g. data from the two external observers indicated that throughout the cycles of AR study, many of the student-teachers’ different language-learning needs and study skills were met, both face to face and online); to enhance learning motivation and reform education; and to link theory to practice, and enhance theoretical studies at university faculties of education based on the ongoing realistic practices.

AR methodology was thus employed as the main research framework guiding the researcher as a practitioner (i.e. teaching staff at university) in the college of education context. The main purpose was to resolve a specific teaching/learning problem while teaching (i.e. a new special education and TESOL/TEFL Methodology course that entails guiding EFL student-teachers in how to teach EFL to learners with special educational needs). The researcher then went through a preliminary data collection process (e.g. reviewing online resources and course specifications and interviewing colleagues interested in special education). This was followed by suggesting a specific intervention designed to resolve the problem throughout a prototyping process that involved two cycles of planning, designing, intervention, evaluation/assessment and re-designing.

Throughout the whole process, data from triangulated assessment tools (e.g. informal observations and co-participants’ reports) – for example, a co-participant reported: ‘I felt as if the teacher was learning with us … one of us … nothing is imposed upon us … All of us were learning together … We were sharing knowledge and experience … It was a long exhausting process, but we benefited a lot from it’ – indicated that AR methodology was:

1. direct and problem-oriented, unlike other methodologies that do not link theory to practice;
2. iterative, involving many cycles and stages, and thus needed much effort and patience;
3. context based, since the researcher started – as a practitioner – from the context with which he was dealing by identifying a real problem, and came out with some solutions (in the form of suggestions, guidelines and framework) to be taken back to the same context from which the problem originated;
4. collaborative and participatory by nature, and thus outcomes should be practical and useful – in this case, EFL student-teachers had a voice in content choice and the general course design process; their input (i.e. feedback, reports and interview accounts) helped so much with reaching an acceptable framework;
(5) a mixture of a group of qualitative (e.g. semi-structured interviews) and quantitative (e.g. questionnaires) methods, which are used based on the ‘fitness-for-purpose’ principle to reach a specific learning goal; and

(6) empowering for teachers (and student-teachers), by giving them a voice to be heard about their classrooms and allowing their perspectives to be documented in the field (see also Carr and Kemmis 1986; Grundy 1987).

Based on the two successive cycles experimented with EFL student-teachers, as far the course structure and content were concerned, some suggestions and guidelines followed by a course content structure were proposed. They were mainly intended to accomplish the second and third research objectives, and thus answer the two relevant research questions: ‘What is the most appropriate form (i.e. structure and contents) that the “TESOL/TEFL for Special Needs Students” course taught to EFL student teachers at AUCOE should take in the light of its main objectives?’ and ‘Which guidelines and suggestions are needed to inform the process of delivering the target course to EFL student teachers?’ These proposals were as follows:

(1) Introducing the field of special education.

(2) The different teaching methods, strategies and techniques used for teaching English to students with special educational needs; for example, learner-centred approaches (self-paced learning and individualised instruction; technology-assisted approaches: computer-assisted language learning (‘CALL’), Web-mediated language learning, online learning, e-learning), collaborative approaches (cooperative learning, peer teaching, group learning, community-based learning) and task-based approaches (task-based learning, problem-based learning, learning projects).

(3) The different strategies and techniques used for assessing and evaluating language learning for students with special educational needs (e.g. alternative assessment strategies: performance-based assessment, portfolio, checklists, discussions, extended essays, diaries and journals, self-assessment, oral presentations, questionnaires, rubrics, interviews, logs, observations, research products, re-telling, etc.).

(4) How to teach different language aspects, mainly vocabulary and grammar, to students with special educational needs.

(5) How to teach the four main language skills (i.e. listening, speaking, reading and writing) to students with special educational needs.

(6) How to employ new technologies to enable a supportive and optimum language-learning environment for students with special educational needs.

(7) How to conduct a successful classroom management for those students.

The final quantitative data obtained from questionnaire results (see Table 2) and follow-up logs were triangulated with qualitative data that provided a more detailed and insightful account (e.g. online reports, diaries and semi-structured interviews). This included themes emerging related to course content and sequence, such as: the appropriate content to be included; to what extent it is satisfactory to student-teachers; the grading of the suggested topics; best teaching/learning methods and techniques to be used with learners with special educational needs; and which language skills to include in the course.

The final model of course structure, content and sequence (Table 4) was thus reached by the study. This model was consistent was both the course objectives (see Table 1) and the
input the researcher received from EFL student-teachers. It represents a delineation of the course final contents; the suggested chapters involved many areas and/or aspects that both the researcher and co-participants – especially in their final reports and interviews – regarded as vital and useful.

### Conclusion and lessons learned

The study was based on the assumption that there is a pressing need in Egypt to increase participatory and classroom-based research studies. This assumption was reinforced after conducting this study. In particular, the observers' notes indicate the effectiveness and usefulness of the iterative course design process that employed input from student-teachers as co-participants. In addition, the online diaries indicate – for the first time – how involved co-participants were as agents of change. In other words, there should be a stronger orientation towards using practice-oriented research approaches and methodologies like AR, developmental research and design experiments. This necessitates introducing those approaches to novice researchers and acquainting them with the procedures followed while using them to resolve real classroom problems. Few researchers are currently doing AR projects, and a suggestion has been made to invite them to share with other researchers their ideas and experience. One of the procedures that should be implemented is holding research seminars at the college departments that introduce those new approaches/methodologies and illustrate examples of research projects and studies that have already employed these approaches.

Moreover, there is a need to provide some specialised training programmes in different subject areas (e.g. special education and language-learning difficulties) and teaching/learning skills and meeting varying teaching/learning styles and learners' characteristics.

Further, policy-makers, school principals and academic supervisors should be encouraging AR in Egypt as a mechanism to reinforce shaping strategies based on evidence and to
enhance the professional development of teachers. This involves directing graduate students doing their master’s and doctoral degrees into how to conduct AR in the field (e.g. schools and universities) as practitioners.

Because any AR study is reflective in nature, the researcher – based on his online diary – could conclude some important lessons learned from this experience:

1. As a practitioner, the researcher knew how to set to work on a process of change at the college, without getting frustrated. AR taught him mainly how to think and plan in stages, and to involve other people as co-participants in these stages.

2. It has become evident from the two iterations and the qualitative assessment tools that AR works well as a curriculum planning and design strategy, because it links theory to practice and enables practitioners to provide evidence-based (and also context-based) solutions to course problems.

3. When a new course is delivered for the first time, it is strongly recommended that the course instructor (practitioner) conducts a participatory (collaborative) AR study with his/her students as partners to negotiate issues related to the new course (e.g. which content to include; which teaching/learning strategies to use; and which sequence the course should take).

4. It has become clear throughout co-participants’ written feedback reports and interview accounts that the area of ‘Teaching English as a foreign language “TEFL/ TESOL” to those with special educational needs’ is a little bit more complicated and advanced than the general TESOL/TEFL Methodology course that EFL student-teachers have been familiar with. Therefore, AR was a good fit.

5. It was evident, especially from informal observation and reflective teaching notes, that a language-learning content is not a stable, rigid structure. It is a flexible component that can be negotiable with others, and hence is open for modifications, improvements and adaptations to be made to it in the light of the already specified goals, standards and learning outcomes.

Finally, the researcher recommends conducting more AR studies to improve other English language courses imposed by the internal regulations, such as Writing 1–4, error analysis, discourse analysis, semantics and applied linguistics, especially because instructors themselves have not studied the same courses with the same specifications while they were English majors.

Further, more problem-oriented AR studies are needed at colleges of education in general to resolve some learning difficulties, communication problems, and course design and content selection issues. These might include:

1. dyslexic learners who are experiencing difficulties with language learning;
2. difficulties associated with facilities and technology laboratories, and how to resolve them;
3. inconsistency between course goals and specifications, on one hand, and course content on the other;
4. ways of increasing language performance and teaching competencies;
5. resolving problems associated with fluency while using EFL; and
6. training student-teachers in new methods and techniques that should be used to address individual differences and varying learning styles.
Disclosure statement

No potential conflict of interest was reported by the author.

References


