

# Curriculum and Critical Thinking A Case Study

*Meenalochana Inguva*

## ABSTRACT

Developing critical thinking skills, one of the most essential skills in the 21st century, is a big challenge in any teaching and learning context. It is a slow process and demands hard work on the part of both teachers and learners. Curriculum, which is central to teaching and learning, needs to be carefully developed to ensure maximum opportunities for student participation through which critical thinking skills can be harnessed. In this article, I will analyse the curriculum development process at Sultan Qaboos University, Oman, and trace the opportunities for developing critical thinking skills in various areas of the English language curriculum in its Foundation Programme. This approach to teaching is oriented towards achieving learning outcomes. The teaching is hence centered on an outcome-based methodology. The data for analysis has been retrieved from the Comprehensive Curriculum Document developed for the purpose of guiding and directing teachers to follow the standards set for the Foundation Programme.

**Keywords:** Critical thinking, curriculum, learning outcomes, opportunities for participation, better thinkers

## INTRODUCTION

The Sultan Qaboos University (SQU) is the only national university in the Sultanate of Oman where English is the medium of instruction. The Centre for Preparatory Studies (CPS) in the university offers a course called the General Foundation Program (GFP), which is mandatory for all students entering the university.

The first language of Omani students is Arabic. The majority of the students entering into higher and post-secondary education in Oman have to first take a

Foundation Program designed to help prepare them for further studies. In essence, General Foundation Programs (GFPs) are effective in helping students attain the prescribed student learning outcomes in four areas: English, Mathematics, Computing and General Study Skills. GFPs which meet these standards are recognized through formal accreditation by the Oman Accreditation Council (OAC).

The General Foundation Program (GFP) at the SQU was developed and introduced at the Centre for Preparatory Studies in the academic year 2009-2010. In order to meet the standards, set forth by the OAC and to realize its vision, the Curriculum Unit developed a Comprehensive Curriculum Document (CCD), which acts as a guide for teachers and administrators and helps them deliver quality education. This document was revised as per the suggestions of teachers, students and other stake-holders through questionnaires, end-semester reports, etc. These revisions were disseminated through the document to the teachers. In my article, I will attempt to understand what the word curriculum means and how it is developed, the different approaches to teaching and learning, and the scope for developing critical thinking skills among students in the context of the GFP offered by the University.

### **CURRICULUM AND CURRICULUM DEVELOPMENT**

What is the meaning of the word curriculum and how was it framed? For framing and developing the curriculum at the CPS, the following definitions were the take off points.

The meaning of curriculum according to Thornbury is "...the whole complex of ideological, social and administrative factors which contribute to the planning of a teaching programme..." (2006, p. 60) and furthermore, it is "...a general summary of the beliefs, values and theory underlying the mission statement of a given educational institution..." (p. 60).

According to Jack Richards (2001), it is important to understand teaching as a part of an interrelated set of factors and processes, that are often referred to as curriculum development.

The above definitions lend themselves to three different approaches to curriculum development, which were analysed to arrive at a framework for developing curriculum at the CPS. These approaches are forward approach, central approach and backward approach. The elements in all these three approaches are tabulated as follows:

Table 1. Approaches to Curriculum Development

Forward design	Central design	Backward design
Syllabus planning	Classroom processes	Learning outcomes
Learning outcomes	Methodology	Methodology
Methodology	Syllabus planning	Assessment
Assessment of outcomes	Assessment of outcomes	Syllabus planning

Learning outcomes were at the forefront in the curriculum design at the CPS because of the approach and the methodology of teaching. The learning outcome statements were derived from an analysis of the needs of the learners and the colleges offering instruction at the university. Based on these three approaches and the learning outcomes that follow, the process of curriculum development involved the following stages:

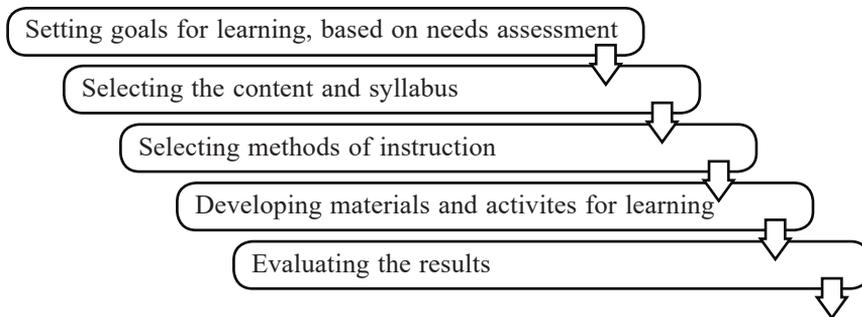


Figure 1. Process of curriculum development.

The Foundation English Language Programme curriculum was developed after obtaining data from the students, the faculty, the administrators and other stakeholders using various tools such as questionnaires, interviews, and group discussions. The curriculum thus developed, was piloted and later revised. In the following sections, I will discuss the context and the analysis of various aspects of the curriculum.

### **The Context: Foundation Program at the Centre for Preparatory Studies**

The Foundation Program is an important area of study for the Sultan Qaboos University. Its main focus is on developing the major areas of academic competence in the students: English, Information Technology, Mathematics and Study Skills. In addition to this, there is an emphasis on the development of cognitive skills (Goodliffe, 2010), which include knowledge, comprehension, application, analysis, synthesis and evaluation (Bloom, 1956). The development of

these skills demands a lot of effort as they have to meet the needs of the students and their future programs. Therefore, the Foundation Program is a “constantly developing context” (Burns, 2013, p. 29) of teaching and learning. Consequently, the program is designed to:

- (a) Equip students with the knowledge and skills necessary for undertaking university education
- (b) Provide students with sufficient analytical skills and knowledge in their areas of study
- (c) Improve the efficiency of teaching and learning in the classroom through students’ independent study
- (d) Provide quality education in English language, Arabic language, Mathematics, Information Technology, and Life Skills (Comprehensive Curriculum Document, 2017).

The Foundation Program English language (FPEL) curriculum consists of six proficiency levels. It is carefully sequenced to help students achieve the learning outcomes of one level and then provide them with the skills required to perform at the next level. Similarly, the courses at each level are developed so as to prepare students for the competencies needed at the next higher level. The vision of the FPEL curriculum at the Centre for Preparatory Studies involves providing “a creative, co-operative and flexible environment in which students and staff can learn, grow and fulfill their potential” (Centre for Preparatory Studies, 2017, n.p.).

Integration of knowledge and practice is one of the key values of the Centre. All faculty members always apply the most effective teaching methodologies in their teaching. However, from a methodological, contextual and practical perspective, it is important to explore to what extent the foundation courses offered by the Centre for Preparatory Studies impart critical thinking skills that can enable our students “to make reasoned judgments and decisions through clear, rational, and independent thinking” (Al-Mahrooqi & Tuzlukova, 2010, p. 523) and empower them. In order to explore this, I will examine the English language curriculum, simultaneously from two perspectives—what has been documented and what actually happens in the classroom. More specifically, I will analyse how critical thinking activities are integrated into teaching language skills.

### **Analysis of the Comprehensive Curriculum Document and Classroom Activities**

The Comprehensive Curriculum Document developed by the Curriculum Unit of the Centre for Preparatory Studies is truly comprehensive and provides complete guidance to teachers (Comprehensive Curriculum Document, 2017,

p. 8). It is comprehensive because it covers all areas of teaching, learning and support services with regard to the English Language, Information Technology, Mathematics and Life skills.

Not only does the document list the different courses offered at the Centre for Preparatory Studies, it also includes the learning outcomes (LOs) for each level/course under each skill along with the level descriptors. These level descriptors function as benchmarks for achieving the set outcomes at each level. The document also lists the prerequisites for each level/course, the materials used and the testing matrix for each level. The testing matrix includes both formative and summative assessment procedures, weightage and time slots for various assessments. In addition to the outcomes and assessment matrixes, the document also describes the best practices and supporting methodology to be followed. Further, it includes the administrative procedures and rules for both teachers and students.

### **CURRICULUM AND CRITICAL THINKING**

The curriculum of the Foundation Program has immense potential for developing critical thinking in students, i.e. thinking that is conscious, voluntary, goal-directed, systematic, analytical, open-minded, truth-seeking, reflective and reasonable (Cotton, 1997; Crowl, Kaminsky & Podell, 1997; Facione, 2011). The faculty at the Centre believe that critical thinking plays an important role in cooperative reasoning and constructive tasks, thereby resulting in better learning. There is also a clear understanding that critical thinking can help students acquire knowledge, strengthen arguments they make, improve their analysis, and help them assess and reconstruct meaning. This involves mindful communication, problem solving and freedom from bias. In order to hone these skills, a variety of tasks, which are progressive in nature, have been developed for all six levels in the Foundation Program offered at the Centre.

With regard to the development of critical thinking and the integration of knowledge, the curriculum attempts to include critical thinking skills in almost all teaching materials (Comprehensive Curriculum Document, 2017). Findings of the research by Ginosyan and Al Abdali (2013) on teacher perspective and the practice of supplementing the curriculum inform us that in-house supplementary teaching materials are effectively used in the Foundation English language classes both to create a motivating classroom dynamic and to provide additional support for the students' linguistic, critical thinking and study skills needs. According to them, developing students' critical thinking skills is the key consideration for ensuring student success (p. 210). To exemplify, reflective portfolios constitute an important component of the curriculum. These portfolios were incorporated into the English language Foundation Program curriculum and introduced in most

courses in 2011, except for the lowest level students. The purpose of implementing these portfolios was two-fold: firstly, they help students improve their study skills, develop learner autonomy and gain a stronger sense of ownership of their work; and secondly, they comply with (and exceed) the OAAA recommendations (Ptak & Al Kaabi, 2013).

### PORTFOLIO

According to Brown, Bull and Pendlebury (1997), portfolio-based learning is used as a means of collecting evidence that learning has taken place. It includes extensive reflective writing to describe and analyse the experience and demonstrate how the experience produces the learning claimed and meets the criteria of the program (p. 192).

The pedagogical function of portfolio, according to Kohonen (2007), is to help students plan, reflect and constantly improve on their process of learning. While working on their portfolios, Foundation Program students are given guidance by teachers, who support them in identifying their learning goals, creating action plans, monitoring their learning activities and evaluating the outcomes through self-assessment and reflection. This is the first step towards autonomy and reflective learning.

A portfolio in the Foundation Program English language course offered by the Centre of Preparatory Studies consists of a number of elements which serve specific aims. Firstly, there is an academic planner. The purpose of this planner is to help students improve their time management skills in order to manage their studies more effectively. Secondly, there is a “can-do” checklist. This has been developed to raise the students’ awareness of their strengths and weaknesses in the context of course-specific learning outcomes. This checklist enables students to set goals and work toward achieving them in a given period of time. Thirdly, there are learning reflections. These are designed to improve the students’ critical thinking skills and develop autonomous learning habits. Fourthly, there is a vocabulary log. Students learn to record new words in a systematic way and expand their vocabulary by using effective word acquisition strategies.

According to Ptak and Al Kaabi (2013), in the early implementation stages of reflective portfolios in the Foundation Program,

...students frequently complained that the recommended portfolio practices did not provide them with opportunities to follow their progress. Moreover, many teachers reported that the reflection sheets were not completed systematically, but often postponed till the end of the course. Students’ reflections often lacked critical analysis, and consisted mostly of repetitive descriptions of students’ learning activities. (p. 51)

These issues posed a challenge with regard to the engagement of the students with reflective and critical thinking tasks in the portfolio practices.

The Foundation Program teachers also try to help students get apprenticeship in the new technology-mediated discourse communities, thereby creating opportunities for authentic and meaningful interaction both within and outside the classroom (Tuzlukova & Ginosyan, 2016). Owing to the fact that computer skills are integrated into the writing and portfolio components, the students are able to fit into the blended learning situation even though they are sometimes unable to skillfully apply their computer skills in writing and portfolio components. This necessitates focusing on application of skills or transferring skills to different disciplines to make students think critically while learning and also in real life. As for the portfolio component, the online tasks and activities initiated and implemented in some courses, in the extra-curricular activities unit, and in the Tutorial/Writing Centers at the Centre for Preparatory Studies, have proved to be very successful, as they have enabled the students to achieve a degree of autonomy in their learning as well as enhanced their critical thinking skills.

### **SPEAKING**

The supplementary materials developed for enhancing the students' speaking skills and to help them to think critically, such as role plays and expressing their opinion, have been developed based on real life contexts. These skills, which are higher order thinking skills, are actually rooted in lower order thinking skills and have been developed further. Such tasks have the potential to develop the thinking skills of students who can then demonstrate them in the debate sessions in class, in extra-curricular activities and other competitions. Some of these tasks are used as learning tasks, and the rest as speaking test tasks. Since they are based on real life contexts, students need to think and contextualize before they participate in the role play. Moreover, they need to listen to each other and respond accordingly, which also requires critical thinking.

The impromptu speaking tasks that have been specially designed to develop the speaking skills of students have a two-fold purpose: first, to instill confidence while speaking in front of an audience and second, to think quickly and talk meaningfully on a given topic. These tasks are usually introduced at the lower levels and are the first step in thinking and talking. Some examples of topics identified for these tasks are, "All classes in Omani universities should be taught in Arabic", "Homework should be banned", "The age for driving should be raised to 25".

Some speaking activities are given as a follow-up to the reading texts. Such activities require students to search for more information on the given topic and

compare or contrast the information with their local context and present it to the class. They also need to answer the questions raised by the audience. For example, if one of the texts in a speaking class is on the topic “Managing Time”, students are introduced to the word “procrastinating”. After reading the text, students are asked to reflect on how they manage their time, and share the pros and cons of their style of time management. This task demands that the students reflect deeply, think critically and then share the information with others. In the commercial and in-house materials used for reading, there is a small section on critical thinking; teachers can exploit this section to encourage students to think beyond the text.

### **READING**

When students read a text, initially they focus on its structure and organization to understand the main ideas in the text. They then read the text in greater detail. Next, students do a variety of tasks designed to test their comprehension and thinking. For example, they may have to read and transfer information to a table, or cull information from a graph or table, analyse the writer’s point of view, relate issues with their real life activities, identify a fact from an opinion, etc. Students begin to think more critically and interpret and/or evaluate the texts critically by doing these tasks in an orderly way. Topics such as “studying at school or studying at home” “studying in your own country or studying abroad”, encourage the students to think more deeply on a subject because not only do they have to express their opinion, but they also have to support their point of view. The other benefit of such follow-up tasks based on reading is that it helps the teacher to understand how each student thinks and approaches an issue and argues to support his/her point of view.

### **WRITING**

In the writing skills materials, the focus is on activities which promote critical thinking in students (Comprehensive Curriculum Document, p. 13-18), for example, linking cause to effect(s) and effects to cause(s), expressing one’s opinion and backing it with convincing arguments, analysing a process, describing events/steps, offering suggestions, making recommendations, etc. The writing courses also aim to teach students the skills of drafting, revising and editing their own writing. Students are shown the importance of writing a draft so that they are aware of the mental processes that take place during the production of a text and take responsibility for improving their writing skills.

### **INDEPENDENT RESEARCH PROJECT**

The aim of an Independent Research Project (IRP) is to prepare the students to

demonstrate independent and critical thinking with the goal of becoming better thinkers.

### **PROJECT WORK**

The exit level students, who are nearing completion of the foundation course are introduced to research skills through a project in which they have to select a topic, look for relevant sources for data, synthesize the information gathered from multiple sources, define important terms, frame research questions, annotate sources, outline and produce a 500-word coherently written report. In the report, the students have to make recommendations or express their views with reference to the thesis statement. In order to help the students develop critical thinking skills in the project, they are given a number of activities and assignments such as comparing and evaluating sources based on their relevance to certain topics and research questions; distinguishing between important and unimportant information, etc.

The project has two stages—the process stage and the product stage. The process stage allows students to develop important study skills such as meeting the given deadlines for each step, organizing their work coherently, and so on. In addition, this stage promotes the skills of annotating sources, writing notes, organizing notes into an outline, synthesizing, paraphrasing and summarizing information from multiple sources. Students also learn how to write in-text citations and reference sources. The entire process is premised on the autonomy and thinking skills of the student. Finally, reading multiple articles on a given topic influences the way a student looks at the research question as he/she has to look at it from different perspectives and think about it critically.

While engaging with the writing component in the project's product stage, Foundation Program students are given feedback using a set of symbols, which help them to understand and identify their errors and revise their first draft. This revision requires students to look at their work critically and revise it before they write the final version for assessment.

### **EXTRA-CURRICULAR ACTIVITIES (ECA)**

The Centre caters to the holistic needs of the students beyond the classroom by introducing them to various clubs such as debating club, speaking club, photography club, etc. Students benefit from these clubs in many ways. All the activities undertaken in the clubs require the students to think critically and/or think on the spot while responding to the given tasks. The clubs also provide the students with a good opportunity to show-case their creativity and thinking skills. Hence ECA activities are always in great demand.

## CONCLUSION

Teaching should be outcome-based, learning-centered and negotiable. The learning outcomes prescribed at each level/course of the foundation program clearly show the opportunities to promote better thinking and enhance students' critical thinking skills. Learning outcomes, such as, distinguishing between the main idea and the supporting details, fact and opinion, identifying the arguments for and against a certain issue in a text, making inferences based on information in a text, contextual clues and explicit and implicit information, identifying the speakers and the topics in a conversation, and the opinion/attitude of the speaker(s), analysing relationships within and between sentences to understand different text structures etc. certainly have immense scope to promote thinking. Consequently, students get better exposure to the global world and such exposure is highly valuable in understanding the world better.

Building critical thinking skills is a gradual process and requires hard work on the part of students. The curriculum on its part provides ample opportunities to students to develop their critical thinking skills. The Comprehensive Curriculum Document guides and supports teachers to identify the scope for promoting critical thinking skills of the students. The materials, the suggested methods, the assessment procedures and the facilities provided to enable learning, along with the administrative support, all play an important role in making students better thinkers. Such an endeavor is a significant contribution towards preparing students for their future studies and becoming sensitized citizens of the country.

## REFERENCES

- Al-Mahrooqi & Tuzlukova, V. (Eds.). (2010). *The Omani ELT symphony: Maintaining linguistic and socio-cultural equilibrium*. Muscat: Sultan Qaboos University Printing Press.
- Bloom, B. (Ed.). (1956). *Taxonomy of educational objectives: The classification of education goals*. London: Longmans.
- Brown, G., Bull, J. & Pendlebury, M. (1997). *Assessing student learning in higher education*. London: Routledge.
- Burns, S. (2013). The rest of the iceberg. In. S. Al-Busaidi & V. Tuzlukova (Eds.), *General foundation programmes in higher education in the Sultanate of Oman: Experiences, challenges and considerations for the future* (pp. 29-34). Muscat: Mazoon Press and Publishing.
- Centre for Preparatory Studies. (2017). Retrieved from <http://www.squ.edu.om/fp>.
- Centre for Preparatory Studies. (2017). Comprehensive Curriculum Document

- (2017). Centre for Preparatory Studies, Muscat: SQU Printing Press.
- Cotton, K. (1997). Teaching thinking skills. School improvement research series. Retrieved from <http://www.nwrel.org/scpd/sirs/6/cu11.html>
- Crowl, T. K., Kaminsky, S., & Podell, D. M. (1997). *Educational psychology: Windows on teaching*. Madison, WI: Brown and Benchmark.
- Facione, Peter A. (2011). *Think critically*. Englewood Cliffs, NJ: Pearson Education.
- Ginosyan, H. & Al Abdali, A. (2013). Supplementing the curriculum: Teacher perspective and practices. In S. Al-Busaidi & V. Tuzlukova (Eds.), *General foundation programmes in higher education in the Sultanate of Oman: Experiences, challenges and considerations for the future* (pp.198-234). Muscat: Mazoon Press and Publishing.
- Goodliffe, T. (2010). Developing national standards for foundation programs in Oman. In R. Al-Mahrooqi & V. Tuzlukova (Eds.), *The Omani ELT Symphony: Maintaining linguistic and socio-cultural equilibrium* (pp. 373-390). Muscat: Sultan Qaboos University Printing Press.
- Kohonen V. (2007). Developing foreign language education through transformative teacher growth. *Humanising Language Teaching*, 9/1. Retrieved from <http://www.hltmag.co.uk/jan07/mart01.htm>.
- Ptak, A. & Al-Kaabi, K. (2013). Reflective portfolios in Omani foundation programs: Tools for developing learner autonomy. In S. Al-Busaidi & V. Tuzlukova (Eds.). *General foundation programmes in higher education in the Sultanate of Oman: Experiences, challenges and considerations for the future* (pp. 46-66). Muscat: Mazoon Press and Publishing.
- Richards, C. Jack. (2001). *Curriculum development in language teaching*. Cambridge: Cambridge University Press.
- Thornbury, S. (2006). *An A-Z of ELT: A dictionary of terms and concepts*. Oxford: Macmillan.
- Tuzlukova, V. & Ginosyan, H. (2016). Blended learning applications and experiences: Case study in Oman. Paper presented at the 3rd International Conference on Language, Linguistics, Literature and Translation “Connecting the dots in the glocalized world”, Muscat.

*Meena Inguva is Head of the Curriculum Unit in the Centre for Preparatory Studies, SQU, Muscat. She has 33 years of experience in teaching at various levels. Classroom and curriculum based research are her interests.*

*meena@squ.edu.om*