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National Learning Outcome Standards: A Case of the Computing Element in Oman

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Abstract The General Foundation Program (GFP) is a pre-requisite program for nearly all undergraduate students in Oman in both private and government higher education institutions. The GFP elements include English Language, Computing, Mathematics, and General Study Skills. The present study aimed at evaluating the effectiveness of the GFP with special reference to its Computing element. To do so, 106 (72 females and 34 males) post-GFP students' perceptions of their competencies in the Computing element were evaluated. Data were collected through a 5-point Likert Scale author-designed questionnaire created based on the Learning Outcomes (LOs) of the component. The chi-square results revealed statistically significant differences among the frequencies of the students' responses in rating their competencies in Computing LOs. Based on the findings, the participants were mostly competent in all the 6 main LOs of the Computing element. In addition, a few criteria with positive effects on achieving the LOs of educational programs were discussed.

Keywords: *Computing, Educational program evaluation, General foundation program, Learning outcomes, Oman*

1. Introduction

The concept of program evaluation has been widely discussed among researchers and scholars worldwide. To date, several definitions have been presented as to what the concept of program evaluation may refer to. For instance, McDavid et al. (2018) defined program evaluation as a systematic process that aims at providing the stakeholders with information on the effectiveness of a given program or policy. Program evaluation is a widely accepted means to assess a program's effectiveness and efficiency worldwide (Foroozandeh et al., 2008).

The General Foundation Program (GFP) is a pre-requisite program in the Sultanate of Oman. Nearly all Higher Education Institutions (HEIs) in the government and private sectors offer a GFP. Based on a decision taken by the Ministry of Higher Education, Research & Innovation (MoHERI) of the Sultanate of Oman and prepared by Oman Authority for Academic Accreditation and Quality Assurance of Education (OAAAQAE), the GFP consists of four main components, namely, English language, Mathematics, Computing, and General Study Skills (OAAAQAE, 2017).

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To the author's best knowledge, no study has been conducted to evaluate the efficiency and effectiveness of the program with particular reference to its Computing element. It has not been widely investigated whether the target national Learning Outcomes (LOs) are achieved. In addition, higher education in Oman has recently seen a significant transition in academic standards (Al-Badi & Khan, 2022). Therefore, the present study evaluated the GFP's Computing element to determine how effective and efficient this component was. The current work investigated the following six LO of the GFP's Computing element:

Table 1

National LOs of the GFP's Computing Module (From OAAAQAE, 2017)

No.	Learning Outcome
1	Computer Fundamentals
2	Basic Computer Operation and File Management
3	Word Processing
4	Spreadsheets
5	Presentation
6	Internet, www and Email

Most students studying in the Sultanate of Oman are required to undergo a GFP. During 2006 and 2007, Oman Accreditation Council established specific academic standards to accredit the GFPs (Carrol *et al.*, 2009). Since then, a few studies have been conducted to assess the quality of the GFPs in Oman. Some studies have broadly focused on the implementation process of the GFPs (e.g., Al-Mahrooqi, 2012; Al-Mammary, 2012; Carroll & Palermo, 2006).

Only a few studies have been carried out concerning the achievement of Oman's GFP LOs. An example is Al Senaidi (2020), who studied the English and Mathematics components of the GFP among Omani university students. A few other studies have roughly pointed at Oman's GFP LOs (Al Hajri, 2014; Ali et al., 2020; Fatima, 2020; Inguva, 2018). However, no study has been carried out with particular reference to the Computing element of the GFPs in Oman.

2. Theoretical Framework

To date, several models and frameworks of program evaluation have been conceptualized. Some of these models have gained more popularity among researchers; some have undergone criticism, and a few have been re-designed based on various needs of the evaluation context. Based on the literature, the recent changes in program and curriculum evaluation models are to keep pace with the most recent trends in the field of evaluation. According to Rossi et al. (2009), program evaluation is not investigating the mere cause-effect relationship between the concepts involved in a program; it rather knows about the value, effectiveness, adequacy, efficiency, and competency of a program that is being evaluated. This has made the program evaluation process more complex (Brewer, 2011).

One of the most widely-used ones is the CIPP model (Stufflebeam, 2003), which focuses on the context, the input, the process, and the product involved in an educational program. While the context aims to assess the needs, assets, and problems in a defined environment, the input assesses the competing strategies, work plans, and budgets of the selected approach within an educational context (Stufflebeam, 2003). In this model, the term process refers to monitoring, documenting, and assessing program activities, while the product deals with the impact, effectiveness, sustainability, and transportability evaluations (Stufflebeam, 2003).

Another program evaluation model is the 4-Level Model (Kirkpatrick & Kirkpatrick, 2006). This model is also referred to as a framework. Although the first version of this model was presented in the 1950s, it has undergone multiple revisions; however, the main concepts within the model (i.e., the four primary levels) remain intact so far (Hamemoradi, Khorasani, & Fathivajargah, 2014). According to Kirkpatrick and Kirkpatrick (2006), these four levels are a) reaction (what participants think and feel about the program), b) learning (the increase in the knowledge and/or skills of participants, as well as the change in their attitudes), c) behavior (positive and effective transfer of knowledge, skills, and/or attitudes of participants from one level to another), and d) results (the final results that occurred because of attendance, participation, implementation of program objectives in real-life situations, etc.).

Later on, Philips (2012) created a learning evaluation model, serving as a complementary model to the 4-Level framework. In doing so, Philips (2012) added a fifth level of evaluation to the existing model in question called the Return on Investment (ROI). Philips' (2012) model specifically focused on how to collect data, isolate the effect of training vs. other factors, and account for more benefits. In other words, Philips (2012) turned the impact of the evaluation into monetary terms.

Once program evaluation is desired, the literature reveals various terms and notions. An example is the summative vs. formative program evaluation which was first introduced by Scriven (1967). Later on, Chen (1996) criticized this taxonomy, arguing that an evaluation could be summative and formative simultaneously and presented a framework with two evaluation purposes (assessment and improvement) and two program stages (process and outcome). The program evaluation trend has observed various changes and shifts in recent decades. However, with minimal fundamental changes: a new model is usually established based on an existing one and is typically comparable in terms of their main components. Nouraey et al. (2020) discussed a series of primary factors upon which program evaluation models are established. These included a) the timing (whether an evaluation is done before, during, or after the program implementation), b) the purpose (the sole purpose of the evaluation might be oriented toward the process or the product of the program), and c) the role of individuals (e.g., students, teachers, curriculum developers, subject experts, and other stakeholders).

3. Methodology

3.1. Participants

Participants were selected from a private college in Muscat, Oman. When the research was conducted (i.e., in the fall semester of the academic year 2020-2021), there were 496 post-GFP students registered in two different faculties of the College (Faculty of Business and Management Studies and Faculty of Computing Sciences). All in all, 106 students participated in the survey. These included 72 female and 34 male students (*f*=68% and 32%, respectively). Based on the demographic information shown in Table 2, 71% (n=75) of the participants were below 20 years of age, while there were no participants 50 years of age or older.

Table 2
Participant's Demographic Information

Category	Sub-Category	N	%
Gender	Female	72	67.9
	Male	34	32.1
	Total	106	100
Age	Below 20	75	70.8
	20-29	19	17.9
	30-39	9	8.5
	40-49	3	2.8
	50 and above	0	0

3.2. Instrument

An author-designed questionnaire was used as the instrument. The questionnaire was based on a 5-point Likert Scale. It was designed based on Oman's GFP Standards, aiming to delve into its Computing element by evaluating its Computing LOs. The questionnaire had two sections. Section 1 aimed at collecting the demographic information of the participants. Section 2 was devided into 6 sub-sections, each targeting one of the 6 LOs. The reliability of the questionnaire was examined through Cronbach's alpha formula before its distribution (*R*=0.790). Moreover, content validity was substantiated by experts.

3.3. Data Collection and Analysis

Data were collected through the electronic version of the questionnaire. Data analysis was done by measuring the frequency and relative frequency of the responses. In addition, the chi-square procedure

was applied to search for statistically significant differences among the frequencies of responses. All statistical procedures were conducted using SPSS (V.25).

4. Results

The following section contains the results of the questionnaire. In doing so, each LO and its detailed descriptive criteria were first presented.

4.1. Computer Fundamentals

Part A of the survey (i.e., computer fundamentals) focused on four LOs. These included the ability to identify and describe:

A1. the main functional blocks of a computer system and how they process information,
A2. the function of various hardware components such as CPU, storage systems, types of memories, and explaining the terms such as bytes, hertz, MB, GB, TB, etc.;
A3. different types of software such as operating systems along with installation and uninstallation of program software; and,
A4. the terms such as copyright, software, shareware, etc. in addition to basic skills to use a computer such as basic keyboard skills

Based on the findings, 91% of the participants showed some competence in the LOs under computer fundamentals (19% very high, 39% high, and 33% medium competence). On the contrary, only 9% of the participants demonstrated a lack of competence in computer fundamentals (8% low and 1% very low competence).

4.2. Basic Computer Operation and File Management

This section aimed to assess the essential computer operation and file management ability of the GFP students. These included:

B1. Switching on and off a computer
B2. Creating passwords
B3. Connecting to external peripheral devices such as printers
B4. Opening, modifying, saving, and closing a file
B5. Searching for files and folders
B6. Seeking the built-in help
B7. Using USB drives and writing files to CDs or DVDs

The findings revealed that most participants had some knowledge of basic computer options and file management (37% very high, 30% high, and 24% medium competence). Only 7% of the participants rated low competence, and 2% rated a very low competence in this item.

4.3. Word Processing

Part C of the questionnaire focused on assessing the word processing ability of the students. To this end, the following items were posed:

C1. Recognizing, opening, modifying, saving, and closing a word document file
C2. Switching between multiple documents
C3. Displaying/hiding toolbars
C4. Understanding different types of menus in a word processing application
C5. Explaining the difference between text, paragraph, and document level formatting
C6. Inserting automatic page numbers, header/footer, foot/endnotes, auto shapes, pictures, symbols, special characters, etc.
C7. Using search/replace to find/replace a specific word/phrase in a document
C8. Moving/deleting/resizing pictures/images/charts in a document or between different documents
C9. Understanding some primary shortcut keys

Based on the findings, 30% of the participants opted for very high competence in word processing. This was followed by 35% as high, 26% as a medium, 7% as low, and 2% as very low competence among participants.

4.4. Spreadsheets

Using spreadsheets such as Microsoft Excel was one of the LOs of the GFP. In this regard, these items were assessed via the questionnaire:

D1. Recognizing, opening, modifying, navigating, saving, and closing a spreadsheet application file
D2. Identify the main components of a spreadsheet window
D3. Explaining the basic uses of spreadsheets
D4. Identifying and using different menus and toolbars to set up the worksheets
D5. Demonstrating how to insert, store and manipulate data
D6. Showing how to handle (Insert, rename, delete, duplicate, move, etc.) worksheets
D7. Generating various formulas using built-in functions and using them appropriately and correctly to solve problems
D8. Demonstrating the formatting of data, cells, rows, and columns in a worksheet

The results showed that 26% of the participants perceived themselves to be highly competent in spreadsheets, followed by 33% high, 32% medium, and 9% of low competence. The responses corresponding to very low competence were only a few, which were rounded up to 0.

4.5. Presentation

Another LO under the GFP was using presentation packages (e.g., Microsoft PowerPoint). To assess the abilities of the students against the sub-LOs, the following items were investigated:

E1. Recognizing, opening, modifying, navigating, saving, and closing a presentation application file Identifying and using different design layouts and presentation view modes
E2. Identifying and using different types of menus in a presentation application
E3. Demonstrating the ability to insert pictures and objects to enhance the outlook of the presentation
E4. Demonstrating the ability to duplicate and move slides within the presentation and between open presentations
E5. Demonstrating the use of transition and animation effects

The findings revealed that 27% of the participants perceived themselves to be highly competent in meeting this LO. This was followed by 37% high, 28% of medium, 7% low, and 1% of very low competence among the participants.

4.6. Internet, www, and Email

The final LOs belonged to the use of the internet, the World Wide Web (WWW), and email. To this end, these items were looked into:

F1. Identifying network fundamentals, types, and the benefits and risks of network computing
F2. Understanding the history and jargon associated with the Internet
F3. Identifying the purpose of a browser in accessing the information on the World Wide Web (WWW), Navigating the Web
F4. Searching the internet for different pieces of information
F5. Understanding how email works
F6. Creating an email, sending, forwarding, and replying to emails
F7. Creating an address list in email, etc.
F8. Identifying how computers are used in different areas of work, school, home, etc.
F9. Describing the effect of IT on our lives

F10. Identifying risks to our personal and organizational data

Finally, the findings showed 28% very high, 34% high, 30% medium, 7% low, and 1% very low competence in this LO among the participants. The chi-square procedure was followed to search for statistically significant differences among the frequencies of the responses. The chi-square results revealed statistically significant differences among the responses, X^2 (1, N = 106) = 3302.852, $p \leq 0.0001$. In other words, the participants were statistically found to be competent in the LOs based on their perceptions and knowledge rating.

5. Discussion

The literature demonstrates the beneficial use of LOs to organize the curriculum, although some concerns about inhibiting the originality and critical thinking of the students have arisen (McMahon & Thakore, 2006). One type of LOs is the nationally prescribed one. Although national LOs are supposed to achieve pre-defined standardized LOs, they are not usually accompanied by a guiding pedagogy to support the faculty in adjusting their teaching methodologies and practices to achieve the defined LOs (Delany et al., 2016).

Assessing the student LOs is a very challenging area. According to Friedlander and Serban (2004), the LOs need to be clearly defined: what skills are to be acquired? What assessment tools and techniques are being utilized to measure the attainment of the skill(s)? Friedlander and Serban (2004) also suggested that LOs, particularly general education skills (e.g., skills related to problem-solving, community, computation, critical thinking, etc.), are somehow interrelated. An example Friedlander and Serban (2004) gave was the need for the faculty teaching outside of the English and Communication departments to receive training on instructional methods and effective strategies to develop, assess, and assist the students with the skills they are teaching.

Teaching methodologies in computing sciences have recently seen some sort of reform. One of the examples is an effort to design and utilize project-based methods for small groups with fundamental computer subjects (Sanchez-Romero *et al.*, 2019). While some researchers examine the usefulness of other methodologies, such as game-based learning approaches (De Freitas, 2018), some look into the benefits of using communities of practice (Al Hashlamoun & Daouk, 2020).

One of the essential criteria in achieving the LOs is the interaction between the learners and teachers. Quadir et al. (2019) highlighted three types of significant interactions on subjective LOs: learner-learner interaction, learner-teacher interaction, and learner-content interaction. Similarly, the positive role of academic advising in achieving better grades among students and improving their self-perceived gains has been highlighted throughout the literature (Chan et al., 2019; Jamaludin et al., 2021; Mu & Fosnacht, 2019)

It is noteworthy that the students who participated in this study completed their GFP right before the transition to online teaching and learning due to the global pandemic of Covid-19 and therefore, they received education on campus. Fatima (2020) pointed out that the shift to online mode due to the pandemic could primarily affect the delivery of the English language among students in Oman, which in turn, would affect the achievement of the set LOs of the GFPs in the Sultanate.

A set of continuous assessment strategies accompanies the GFP LOs to ensure the proper implementation of the processes involved in achieving such LOs (OAAAQAE, 2017). The responsible implementation of the continuous assessment strategy may lead to better achievement of the LOs. Continuous assessment may play a significant role in enhancing the learning product and process among students in Oman.

The findings revealed that based on the perceptions of the students who participated in this study, they were mostly competent in the LOs of the Computing element of Oman's GFP. Based on the literature, several criteria determine the success of achieving LOs in different educational contexts. Some of these are a) proper academic advising services provided to the students, b) using innovative teaching methodologies to deliver the module(s), c) proper mode of interaction between the students and their teachers, and d) adequate training and professional development for the teachers teaching specific

modules that require additional skills (e.g., the need for IT teachers to be trained on English language and communication skills).

The present case study was an attempt to provide insights into achieving the LOs of the Computing element within Oman's GFP. Although some challenges and suggestions in achieving educational LOs were mentioned, the main focus of the present work was to investigate the perceptions of the GFP students on their competencies of the LOs. Further studies with more participants need to be conducted to delve into the GFP.

The findings of the present work may shed light on the delivery of Oman's GFP in general and the Computing element in Particular. In addition, the results would provide significant information on the effectiveness of the current GFPs in the Sultanate of Oman. The present findings could be linked to teaching, learning, curriculum, and assessments of GFP's Computing module. The results could be significant to program developers, the MoHERI, the OAAAQAE, and other related bodies dealing with developing different academic programs related to Information Technology and Computing in particular and the GFP in general. Finally, it is noteworthy that, like any other educational program, the GFP LOs are interrelated. For example, Akbari and Pishghadam (2022) have highlighted the crucial role of technology in understanding all aspects of language. Therefore, it is suggested to consider all four elements of the GFP in future studies.

Disclosure Statement

The authors claim no conflict of interest.

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References

Akbari, M. H., & Pishghadam, R. (2022). Developing new software to analyze the emo-sensory load of language. *Journal of Business, Communication and Technology*, *1*(1), 1-13.

Al-Badi, A. H., & Khan, A. (2022). Enterprise resource planning systems development in Omani higher education institutions from the perspectives of software project managers and developers. *Journal of Business, Communication and Technology*, *1*(1), 14-23.

Al Hajri, F. (2014). English language assessment in the colleges of applied sciences in Oman: Thematic document analysis. *English Language Teaching*, *7*(3), 19-37.

Ali, H. I. H., Scatolini, S. S., Al Hassni, B. M., & Al Washali, Q. S. (2020). Review of 12 quality audit reports on student learning in GFPs in Oman. In N. Al-Wahaibi, & A. Victor (Eds.), *Oman 20th International ELT Conference: Building Upon the Past, Envisioning the Future* (pp. 43-56). Sultan Qaboos University Press.

Al Hashlamoun, N., & Daouk, L. (2020). Information technology teachers' perceptions of the benefits and efficacy of using online communities of practice when teaching computer skills classes. *Education and Information Technologies*, *25*(6), 5753-5770.

Al-Mahrooqi, R. (2012). A student perspective on low English proficiency in Oman. *International Education Studies*, 5(6), 263-271.

Al-Mamari, A. S. (2012, February 20-21). *General foundation program in higher education institutions in Oman national standards: Implementation and challenges* [Paper presentation]. Oman Quality Network Regional Conference, Muscat, Oman.

Al Senaidi, Y. S. (2020). *Evaluation of the English and mathematics components of the general foundation program (GFP): Omani university students' learning satisfaction outcomes*. Kent State University.

Brewer, E. W. (2011). Evaluation models for evaluating educational programs. In V. C. X. Wang (Ed.), *Assessing and evaluating adult learning in career and technical education* (pp. 129-153). IGI Global.

Carroll, M., & Palermo, J. (2006, January 19-20). *Increasing national capability for quality higher education: The case of the Sultanate of Oman* [Paper presentation]. Community, Customers, Clients, Colleagues and Competitors: Defining relationships through institutional research, Coffs Harbour, New South Wales.

Carroll, M., Razvi, S., & Goodliffe, T. (2009, March 1-2). *Using foundation program academic standards as a quality enhancement tool* [Paper presentation]. New Approaches to Quality Assurance in the Changing World of Higher Education, Muscat, Oman.

Chan, Z. C., Chan, H. Y., Chow, H. C. J., Choy, S. N., Ng, K. Y., Wong, K. Y., & Yu, P. K. (2019). Academic advising in undergraduate education: A systematic review. *Nurse Education Today, 75*, 58-74.

Chen, H. T. (1996). A comprehensive typology for program evaluation. *Evaluation Practice, 17*(2), 121-130.

De Freitas, S. (2018). Are games effective learning tools? A review of educational games. *Journal of Educational Technology & Society, 21*(2), 74-84.

Delany, C., Kosta, L., Ewen, S., Nicholson, P., Remedios, L., & Harms, L. (2016). Identifying pedagogy and teaching strategies for achieving nationally prescribed learning outcomes. *Higher Education Research & Development, 35*(5), 895-909.

Drakos, J. (2005). Ideas for developing a personal EFL teaching curriculum. *The Internet TESL Journal, 11*(3), 1-3.

Fatima, N. (2020). English language teaching during the times of COVID-19-challenges and opportunities: A brief study of GFP students in Muscat College. *Journal for Research Scholars and Professionals of English Language Teaching, 21*(4), 349-367.

Forouzandeh, E., Riazi, A. M., & Sadighi, F. (2008). TEFL program evaluation at master's level in Iran. *TELL, 2*(6), 71-100.

Friedlander, J., & Serban, A. M. (2004). Meeting the challenges of assessing student learning outcomes. *New Directions for Community Colleges, 126*, 101-109.

Hamemoradi, M., Khorasani, A., & Fathivajargah, K. (2014). Evaluation of the effectiveness of the on-the-job training courses in NIGC based on Kirkpatrick, Phillips and CIPP models. *Human Resource Management in The Oil Industry, 5*(19), 103-130.

Henning, G. (1987). *A guide to language testing: Development, evaluation, research*. Newbury House.

Inguva, M. (2018). Effective use of benchmarking: The context of the centre for preparatory studies in Oman. *Arab World English Journal, Proceedings of 1st MEC TESOL Conference*, 93-104. https://dx.doi.org/10.24093/awej/MEC1.7

Jamaludin, A. R., Fikry, W. A. W. I., Zainal, S. Z., Hadi, F. S. A., Shaharuddin, N., & Abd Rahman, N. I. (2021). The effectiveness of academic advising on student performance. *International Journal of Advanced Research in Future Ready Learning and Education, 25*(1), 20-29.

McDavid, J. C., Huse, I., & Hawthorn, L. R. (2018). *Program evaluation and performance measurement: An introduction to practice* (2nd ed.). Sage Publications.

McMahon, T., & Thakore, H. (2006). achieving constructive alignment: Putting outcomes first. *Quality of Higher Education, 3*, 10-19.

McNamara, C. (2002). *A basic guide to program evaluation.* The Grantmanship Center.

Mu, L., & Fosnacht, K. (2019). Effective advising: How academic advising influences student learning outcomes in different institutional contexts. *The Review of Higher Education, 42*(4), 1283-1307.

OAAAQAE (*Oman Authority for Academic Accreditation and Quality Assurance of Education*). (2017). Retrieved 30 January 2022, from http://www.oaaa.gov.om/Review/376123563_MC%20GFPQA%20Report-final%20for%20Publication.pdf

Phillips, J. J. (2012). *Return on investment in training and performance improvement programs*. Routledge.

Quadir, B., Yang, J. C., & Chen, N. S. (2022). The effects of interaction types on learning outcomes in a blog-based interactive learning environment. *Interactive Learning Environments, 30*(2), 293-306.

Rossi, P. H., Lipsey, M. W., & Freeman, H. E. (2009). *Evaluation: A systematic approach* (6th ed.). Sage Publications.

Sanchez-Romero, J. L., Jimeno-Morenilla, A., Pertegal-Felices, M. L., & Mora-Mora, H. (2019). Design and application of project-based learning methodologies for small groups within computer fundamentals subjects. *IEEE Access*, *7*, 12456-12466.

Scriven, M. (1967). The methodology of evaluation. In R. Tyler, R. Gagne, & M. Scriven (Eds.), *Perspectives of curriculum evaluation (AERA Monograph Series- Curriculum Evaluation)* (pp. 39-83). Rand McNally.

Stufflebeam, D. L. (2003). The CIPP model for evaluation. In T. Kellaghan & D. L. Stufflebeam (Eds.), *The International Handbook of Educational Evaluation* (pp. 31-62). Kluwer.

Appendix 1
The Student Questionnaire

Dear Participant,

The following questionnaire is part of a survey to study the effectiveness and efficiency of Oman's General Foundation Program (GFP) with special reference to its Computing element. Please read each statement carefully and choose the answer that best represents your opinion. Rest assured that the results of the questionnaire will solely be used for research purposes.

Thanks for your cooperation!
Researcher

As a student who has done the GFP's Computing course, how would you rate your current knowledge and skills in the following areas?

Demographic Information					
Gender	**Male -----**	**Female -----**			
Age	**Below 20 -----**	**20-29 -----**	**30-39 -----**	**40-49 -----**	**50 and above -----**

Statement	**Very High**	**High**	**Medium**	**Low**	**Very Low**
Part A: Computer Fundamentals					
As a student who has done the GFP's Computing course, how would you rate your current knowledge and skills in the following areas?					
A1. Identifying the main functional blocks of a computer system and how they work to process information					
A2. Identifying and describing the function of different hardware components such as CPU, storage systems, types of memories like RAM, ROM, etc., and explaining the terms such as Hertz, Bytes, KB, MB, GB, TB, etc.					
A3. Identifying and explaining the different types of software such as operating systems, application software, and programming software, and installing and uninstalling software applications					
A4. Working with computers (e.g., demonstrating basic keyboard skills, explaining the terms such as software copyright, freeware, shareware, end-user license agreement, etc.)					
Part B: Basic Computer Operation and File Management					
B1. Switching on and off a computer					
B2. Creating passwords					
B3. Connecting to external peripheral devices such as printers					
B4. Opening, modifying, saving, and closing a file					
B5. Searching for files and folders					
B6. Seeking the built-in help					
B7. Using USB drives and writing files to CDs or DVDs					
Part C: Word Processing (e.g., Microsoft Word)					

C1. Recognizing, opening, modifying, saving, and closing a word document file					
C2. Switching between multiple documents					
C3. Displaying/hiding toolbars					
C4. Understanding different types of menus in a word processing application					
C5. Explaining the difference between text, paragraph, and document level formatting					
C6. Inserting automatic page numbers, header/footer, foot/endnotes, auto shapes, pictures, symbols, special characters, etc.					
C7. Using search/replace to find/replace a specific word/phrase in a document					
C8. Moving/deleting/resizing pictures/images/charts in a document or between different documents					
C9. Understanding some basic shortcut keys					
Part D: Spreadsheets (e.g., Microsoft Excel)					
D1. Recognizing, opening, modifying, navigating, saving, and closing a spreadsheet application file					
D2. Identify the main components of a spreadsheet window					
D3. Explaining the basic uses of spreadsheets					
D4. Identifying and using different menus and toolbars to set up the worksheets					
D5. Demonstrating how to insert, store and manipulate data					
D6. Demonstrating how to handle (Insert, rename, delete, duplicate, move, etc.) worksheets					
D7. Generating various formulas using built-in functions and using them appropriately and correctly to solve problems					
D8. Demonstrating the formatting of data, cells, rows, and columns in a worksheet					
Part E: Presentation (e.g., Microsoft PowerPoint)					
E1. Recognizing, opening, modifying, navigating, saving, and closing a presentation application file Identifying and using different design layouts and presentation view modes					
E2. Identifying and using different types of menus in a presentation application					
E3. Demonstrating the ability to insert pictures and objects to enhance the outlook of the presentation					
E4. Demonstrating the ability to duplicate, move slides within the presentation and between open presentations					
E5. Demonstrating the use of transition and animation effects					
Part F: Internet, WWW, and Email					
F1. Identifying network fundamentals, types, and the benefits and risks of network computing					
F2. Understanding the history and jargon associated with the Internet					
F3. Identifying the purpose of a browser in accessing the information on the World Wide Web (WWW), Navigating the Web					
F4. Searching the internet for different pieces of information					
F5. Understanding how email works					
F6. Creating an email, sending, forwarding, and replying to emails					
F7. Creating an address list in email, etc.					
F8. Identifying how computers are used in different areas of work, school, home, etc.					
F9. Describing the effect of IT on our lives					
F10. Identifying risks to our personal and organizational data					