



Microsoft office specialist and microsoft technology associate certification: An integrated curriculum for technical skills validation

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Abstract

Aim: This paper aims to provide information on how well college students fared on the Microsoft Office Specialist (MOS) and Microsoft Technology Associate (MTA) exams. The MOS and MTA programs offer extensive resources to aid teachers in achieving world-class ICT integration in the classroom.

Methodology: Student exam takers' Certipoint results from De La Salle University-Dasmaringas in Dasmaringas, Cavite, Philippines, were analyzed using a quantitative-descriptive secondary data analysis.

Findings: There was a 34% success rate for those attempting certification, a 63% failure rate, and a 3% incomplete rate. The results of this test will attest to the student's readiness for entry-level employment. Teachers and students alike can benefit from this certification program, which makes it simple to test their knowledge of productivity tools via the web.

Implications/Novelty: Taking into account the range of the fundamentals and precepts of MOS and MTA, the findings of this research are useful for educational institutions because they can be used as the basis for crafting a program or an improvement plan for the curriculum, facilities, or training geared towards these certifications schemes.

Key Words: Student Certification, Microsoft Office Specialist, Microsoft Technology Associate, Global Certification, Productivity Tools

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INTRODUCTION

One effect of legislative and executive action is to realign the technological needs of societies and industries (Ogena and Brawner 2009). When information and communication technologies (ICT) reformed the educational system worldwide, it also reshaped the role of learning facilitators. For teachers to make the most of ICT in the classroom, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) collaborated with global technology and education leaders to establish standards for teachers to meet. While attempting to hint at inequalities in access to ICT, Somekh (2008) provided an example of how ICT helps academic institutions reduce stress in their workplaces. Educational reform that had a major effect on teachers' programs and preparation was introduced by Ferrari (2012) as part of the UNESCO ICT framework for teachers (Jimoyiannis and Komis 2007; United Nations Educational, Scientific and Cultural Organization 2011; Vosniadou and Kollias 2001; Wang 2015; Watson and Prestridge 2001).

Integrating a multilevel evaluation framework for ICT (Davis, Preston, and Sahin 2009; United Nations Educational, Scientific, and Cultural Organization 2011) has been implemented in the educational ecosystems of a developing economy to better prepare their human capital to meet the challenges of globalization (Tinio 2003). As an integral part of the integration factors brought about by regionalization, the field of information and communication technology (ICT) within the Association of Southeast Asian Nations (ASEAN) has been opened up to free competition from all over the region. According to the ASEAN ICT Masterplan 2015, the organization's goal was to make the region a global ICT hub (Heinl 2013). As a result of these changes, the ASEAN member

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states (Irawan, 2014) ratified the ASEAN Framework Agreement to foster cooperation to develop, strengthen, and enhance the competitiveness of the ICT sector in ASEAN (Sang, Lee, and Lee, 2009) and to close the digital divide. ICT is seen as having a significant impact on the economies of ASEAN member states because of its role in education and employment (Kaba and Said, 2014).

The Philippines must compete globally in the information and communication technology (ICT) sector due to globalization, internationalization, and regionalization (Ramos, Nangit, Ranga, and Trinona 2007). The current educational system is one of the byproducts of legislation and executive order passage, as Ogena and Brawner (2009) pointed out in their contribution to National policies and practices on ICT in education. Young Filipinos will benefit from this systemic support as they are equipped to become lifelong learners and productive members of technologically advanced societies. In today's educational environment, all of a student's experiences in the methods of instruction and the outcomes in the form of meaningful application of learning technologies are embedded and integrated into a curriculum. Global technical certifications, such as productivity tools, vendor specifics, and advanced global I.T. certifications, are incorporated into higher education institutions' curricula to produce industry-relevant and job-ready graduates.

More and more businesses are investing in their employees' growth by offering in-house certification in areas like workforce development and re-aligning skill sets to enable employees to carry out their jobs (Cantor, 2002). (Al-Rawi, Bouslama, and Lansari 2006). Hiring and Human Resources Managers believed that it was simple to assess those with certifications, as indicated by a quantitative analysis of applicants' education, certifications, or experience (Robin, 2011). According to Gabelhouse (2002)'s hypothesis, "certificants" have seen a greater Return on Investment (ROI) thanks to vendor certifications.

In response to the growing demand for employees with technical certifications, some schools have revised their curricula to better equip students to pass exams for vendor-specific, vendor-neutral (Montante & Khan, 2001) and specialized certifications offered by independent bodies. According to Counterme and Pfeiffer's (2000) study "implementing an IT concentration in a CS department: content, rationale, and initial impact", employers' opinions are favorable because graduates have the necessary IT skills because they have earned professional certification. McGill and Dixon (2005) hypothesized that this is a good way for vendors to promote their products, services, and technologies and increase the market share of certified professionals worldwide. Skills validation on the student's technical credentials and portfolio, "self-assessment of your strengths and weaknesses in information technology" as Adelman (2000) put it (Sireci, Fitzgerald, and Xing 1998).

De La Salle University College Dasmariñas's of Science and Computer Studies adopted the MOS and MTA many years ago. Since the program's implementation as technical skills validation, this paper reports the outcomes of the Microsoft Office Specialist and MTA "certificants" for students in higher education.

According to the certifying body, Certiport;

"MOS certification is the best credential for those looking to establish their expertise and advance in their chosen fields. Microsoft Office is a robust service to help you unleash your best ideas, get things done, and stay connected on the go. Also, having MOS demonstrates that you have the knowledge to make the most of Microsoft Office and its capabilities. You can show evidence of improved performance, uniqueness, and self-assurance. The MOS credential has three tiers that help people prove their competence and advance in their chosen fields".

MOS's certification tests cover all of Word, Excel, PowerPoint, Access, Outlook, SharePoint, and OneNote. The MTA is yet another credentialing option available through the university. According to Certiport's website, MTA is the best way to distinguish oneself in technology and investigate potential educational and professional paths. Obtaining credentials enhances the enquote Certificants. Getting certified shows clients, colleagues, and potential employers that you're serious about developing your skills and taking on more difficult tasks. In addition, becoming certified opens up opportunities to network with a large, diverse group of MCPs worldwide, as well as access to exclusive resources and benefits available only to Microsoft Certified Solutions Developers (MCSDs). The Microsoft Technology Associate (MTA) certification is a great first step in proving to employers that you have a firm grasp of the fundamentals of the IT industry. From there, you can advance your career with certifications like the Microsoft Certified Solutions Associate (MCSA) and Microsoft Certified Solutions Developer (MCSD), both of which verify your proficiency with Microsoft products and IT solutions built with Microsoft technolo-

gies. Microsoft certifications are a great way to get your skills and knowledge recognized and rewarded in your field.

LITERATURE REVIEW

The influence of an IT certification on student's success relies mostly on the education levels at which students attain a certification. Several scholarly works presented the influence of IT certification on a student's success.

Rob (2014) stated that IT certification offers an avenue for promotions, salary increases, and new positions and it can increase a new graduate's profile as an advantage over the other graduates. The study reported the steps of incorporating numerous IT certification in the MIS curriculum of U.S. University to bring IT departments at par with IT industry standards.

Buzzetto-More (2012) mentioned that labor force has changed vividly as outcomes of technological progress. Maryland instigated an effort to upgrade the quality and academic integrity to prepare students for the admission into the 21st-century labor force. The study concentrated on the development of the curriculum to be aligned with the Microsoft training certification program (Buzzetto-More, 2012; Dyah et al. 2017).

Randall and Zirkle (2005) stated the IT certification programs is a grown development in secondary and tertiary institutions as instructional vehicles to provide students with necessary skills needed by the workforce. On the other hand, certification programs convey numerous significant issues and implications for the educational institutions such as IT teachers, administrators, students and the IT workforce (Basoglu, 2017).

Zeng (2005) addressed the significant benefits of Microsoft Office Specialist Certification in three major components such as Microsoft Windows operating systems, Microsoft office suite software and Microsoft office suite software integration. The study presented a comprehensive method to incorporate the three components into an existing curriculum for Computer Information Systems program to assist students to achieve and develop their applied technical skills while earning the academic degree.

Al-Rawi, Lansari, and Bouslama (2005) proposed a curriculum that offers graduates with an IS degree, and opportunity to attain IT certification before graduation. Certification programs were incorporated in their IS degree. The designed curriculum delivers an opportunity for certification exam after completing the course series primary to that certification program.

Zeng (2004) presented a recently designed curriculum for the computer information system to identify the fundamental courses for computer information system programs that integrate the characteristics and categories of IT certifications acknowledged by industries. The designed curriculum was a three-step curriculum that contains fundamental courses, other related courses clustered into numerous focus programs and the last was bridging courses in the academic field to specialized training programs that are offered by the certified training and testing center.

Adelman (2000) conducted a parallel study between the systems of traditional higher education and the new system of credentialing from corporate vendors and professional associations in IT sectors. One of the findings stated in the study that certifications can be achieved if the students had practical technical skills.

METHODOLOGY

The researchers employed the quantitative research design to quantify data and generalize results of the total population of examinees. A descriptive secondary data analysis was conducted using the data taken from the Certiport certification results of those "certificants" from De La Salle University-Dasmariñas, Dasmariñas, Cavite, Philippines. The total population, both from MOS and MTA of the examinees is five thousand six hundred ninety-six (5,696). The study used percentage method which is one of the most frequent ways to represent statistics.

$$\text{Percentage} = \frac{\text{No of Examinees}}{\text{Total Population}} \times 100 \tag{1}$$

RESULTS AND DISCUSSION

There are five thousand six hundred ninety-six (5,696) examinees who took the technical examinations for the Microsoft Office Specialist and MTA certifications from the Certiport. Table 1 describes the percent (%) distribution of the certificants by the program.

Table 1: Certificants’ distribution by program

Program Name	# of Certificants	% Contributions
Microsoft Office Specialist	4913	86
MTA	783	14

Table 2 presents the certificants’ distribution of MOS with four thousand nine hundred thirteen (4913) examinees.

Table 2: Certificants’ distribution by MOS certification program and remarks

Microsoft Office Specialist	# of Certificants	% Contributions
Passed	1685	34
Failed	3146	64
Incomplete	109	2

Table 3 presents the certificants’ distribution by MTA Certification Program with seven hundred eighty-three (783) examinees.

Table 3: Certificants’ distribution by MTA certification program and remarks

MTA	# of Certificants	% Contributions
Passed	276	35
Failed	453	58
Incomplete	54	7

Table 4 presents the overall results of all examinees of certificants’ programs.

Table 4: Certificants distribution by MTA certification program and remarks

Overall Results	# of Certificants	% Contributions
Passed	276	35
Failed	453	58
Incomplete	54	7

Discussion

According to Zeng (2005), Microsoft Certification suits the international standard of certification distinguishing a high level of proficiency in computing skills. Microsoft Certification has been shaped to support employees and employment seekers to demonstrate with confidence that they have attained a high level of proficiency in using Microsoft software tools which Microsoft recommends.

As illustrated in Table 1, eighty-six percent (86%) which is equivalent to four thousand nine hundred thirteen (4,913) students, challenged the MOS, while there are only fourteen percent (14%), which is equivalent to seven hundred eighty-three (783) students, who took the MTA certification exam.

Table 2 illustrated the certificants of MOS. There are thirty-four percent (34%) equivalent to one thousand six hundred fifty-eight (1,658) out of four thousand nine hundred thirteen (4,913) examinees who obtained a passing mark and were certified as Microsoft Office Specialist, while there were sixty-four percent (64%) equivalent to three thousand one hundred forty-six (3,146) out of four thousand nine hundred thirteen (4,913) examinees. Also, two percent (2%) of the examinees equivalent to one hundred nine (109) out of four thousand nine hundred thirteen (4,913) examinees have had Incomplete marks which are attributed to students still being able to re-attempt the exam within the prescribed duration of the examination schedule or failed to submit within the prescribed period of submission.

The data and results in Table 3 show that out of seven hundred eighty-three (783) examinees who took the MTA program examination, there are thirty-five (35%) equivalent to two hundred seventy-six (276) out of seven hundred eighty-three (783) examinees who obtained a passing score and got a remark of PASS. On the other hand, the higher than the passing percentage of examinees got failing remarks to about fifty-eight percent (58%) equivalent to four hundred fifty-three (453) out of seven hundred eighty-three (783), and seven percent (7%) equivalent to fifty-four (54) out of seven hundred eighty-three (783) examinees had an Incomplete attempt which is attributed to student still being able to re-attempt the exam within the prescribed duration of the examination schedule or failed to submit within the prescribed period of submission.

Table 4 depicted that thirty-four percent (34%) passed the certification attempts, sixty-three percent (63%) failed, and there was three percent (3%) Incomplete. This examination validates entry-level job skills of the students to advance their careers. MOS and MTA programs provide robust tools that help educators drive best-in-class integration of ICT into classroom instruction.

The MOS certification assesses the technical skills of those examinees in using the vendor applications including; 77-418: MOS: Microsoft Office Word 2013, 77-422: MOS: Microsoft Office Power Point 2013, Microsoft Office Excel, Microsoft Office Sharepoint, Microsoft Office OneNote, Microsoft Office Outlook, Using Microsoft Office PowerPoint 2007, and Using Microsoft Office Word 2007.

Technical skills set having been challenged by the examinees under MTA includes; 98-349: MTA: Windows[®] Operating System Fundamentals, 98-361: MTA: Software Development Fundamentals (C#), 98-361:MTA: Software Development Fundamentals (VB), 98-362: MTA: Windows[®] Development Fundamentals, 98-363: MTA: Web Development Fundamentals (C#), 98-363: MTA: Web Development Fundamentals (VB), 98-364: MTA: Database Fundamentals, 98-366: MTA: Networking Fundamentals, 98-367:MTA: Security Fundamentals, 98-368:MTA: Mobility and Device Fundamentals, 98-369:MTA: Cloud Fundamentals, 98-372: MTA: Microsoft .NET Fundamentals (C#), 98-373: MTA: Mobile Development Fundamentals (C#), 98-375: MTA: HTML5 Application Development Fundamentals, and 98-379: MTA: Software Testing Fundamentals (C#). With today's dynamic economy it has become obvious that more and more professionals want to get certified in a special area to maintain their competitive edge (Zeng 2005). In an almost literature review, Certification programs are integrated into the curriculum to achieve the high-level proficiency to meet the strong demands of the industries. De La Salle University Dasmarias had the same goals and objectives. Certification programs are integrated into the curriculum across all programs to deepen the knowledge and improve the technical skill sets of an individual to become globally competitive and meet the strong demands of the industries.

CONCLUSION, RECOMMENDATIONS AND IMPLICATIONS

This certification program provides the good platform for job security and graduates confidence. However, based on the results, it was consistent with both programs having higher percentage rate of failed examinees. This program provides silver lining on the student's technical preparedness, especially for a Microsoft-based application; however, the findings resonate that examinees should be provided a carefully designed program to raise the bar of passers. Hence, MOS and MTA are accounted to be contributory to both educators and students which empower and provide support for productivity tools, with easy-to-use Internet-based testing. Educators should advocate the

use of productivity tools and technology associate-related activities to promote students skills development. The results reported in this study may be considered by the college as the basis of crafting a program or an improvement plan to the curriculum, facilities or training geared towards these certifications schemes considering the spectra of the rudimentary and precepts of MOS and MTA.

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