



This book presents key findings of a study related to the status, trends and challenges of e-Learning implementation in Malaysian HEIs. A total of 26 e-Learning administrators, 1,635 lecturers, and 6,301 students from 27 HEIs (including polytechnics) were involved as respondents. Data were obtained from the Malaysian HEIs e-Learning Questionnaire (IT Manager) which contains 74 items, the Malaysian HEIs e-Learning Questionnaire (Instructor) which contains 35 items, and the Malaysian HEIs e-Learning Questionnaire (Student) which contains 20 items. The main aspects studied include: (i) e-Learning policy, (ii) e-Learning governance, (iii) Learning Management System (LMS), (iv) e-Learning training, (v) e-Content development, (vi) integration of e-Learning in teaching and learning, and (vii) quality assurance and e-Learning future planning. Data was analysed from the aspects of a) status/practice of e-Learning, b) trends of e-Learning implementation, and c) challenges of e-Learning implementation.

This report comprises of 10 chapters. Chapter 1 provides an introduction to the study reported in this book. Chapter 2 describes the findings related to e-Learning policies, while Chapter 3 presents the findings related to e-Learning governance. Chapter 4 is devoted to the discussion of the findings related to Learning Management System (LMS), while Chapter 5 describes findings related to e-Learning training. Aspects related to e-Content development are presented in Chapter 6, while findings related to the integration of e-Learning in teaching and learning are described in Chapter 7. Finally, Chapter 8 is devoted to describing the findings related to quality assurance and future plans for e-Learning in the respective HEIs. The summary and conclusions are presented in Chapter 9, while the proposed improvements and policy implications are discussed in Chapter 10.

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e-Learning in Malaysian Higher Education Institutions: Status, Trends, & Challenges



MEIPTA



M E I P T A

e-Learning in Malaysian Higher Education Institutions: Status, Trends, & Challenges

Editor
Mohamed Amin Embi

e-Learning in Malaysian Higher Education Institutions: Status, Trends, & Challenges

EDITOR
MOHAMED AMIN EMBI



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Foreword**Minister of Higher Education****Ministry of Higher Education Malaysia**

Assalamualaikum wbt, Greetings to all and Salam 1 Malaysia

I thank Allah S.W.T, for with his Divine grace, I am given the opportunity to pen down a few welcoming words in this book entitled e-Learning in Malaysian Higher Education Institutions: Status, Trends, & Challenges.

This book is the result of a study led by Prof. Dr. Mohamed Amin Embi to support one of the 21 Critical Agenda Projects (CAP) i.e, e-Learning and the National Key Result Areas (NKRA) of the Ministry of Higher Education (MOHE).

I wish to express my gratitude to the 20 public HEIs, 7 private HEIs, and 3 polytechnics that gave their full cooperation in responding to the online questionnaire.

Indeed, the findings are very important to MOHE to formulate policies and devise a comprehensive e-Learning plan in line with the rapid development of Information and Communication Technologies (ICT).

I am very confident that we are on the right track in our efforts to strengthen the implementation of e-Learning so as to be more organized and having clear mechanisms.

In this respect, all institutions of higher learning in Malaysia must move more quickly to ensure the success of the e-Learning agenda with strong support from MOHE.

Wassalam.

DATO' SERI MOHAMED KHALED BIN NORDIN

Foreword
Director General
Department of Higher Education
Ministry of Higher Education Malaysia

Assalamualaikum wbt and Greetings to all

The publication of this book, e-Learning in Malaysian Higher Education Institutions: Status, Trends, & Challenges is very timely and in line with the aspiration of the Ministry of Higher Education (MOHE) to further strengthen the aspects of e-Learning.

The rapid development of Information and Communication Technologies (ICT) has necessitated all Higher Education Institutions (HEIs) to move fast to embrace e-Learning among the lecturers and their students.

The Council of the Malaysian Public HEIs e-Learning Coordinators (MEIPTA) which has been established since 2007 plays a key role in assisting MOHE in ensuring the success of the e-Learning agenda, particularly in the process of developing a National e-Learning Policy.

Through this policy, HEIs will be able to move further and play a clearer role in strengthening aspects of e-Learning.

MOHE, through the Higher Education Leadership Academy (AKEPT) will continue to provide support to implement e-Learning training programs in an effort to acculturate e-Learning more rapidly among all lecturers.

On behalf of MOHE, I would like to record my appreciation and thanks to members of the research team who have made this project a success.

Hopefully, such efforts can be continued from time to time to improve the quality of Malaysian higher education.

Wassalam.

DATO' IR. DR. RADIN UMAR BIN RADIN SOHADI

Foreword
Secretary General
Ministry of Higher Education Malaysia

Assalamualaikum wbt and Greetings to all

The study on e-Learning implementation in Malaysian Higher Education Institutions (HEIs) is a step in the right direction taken by the Ministry of Higher Education (MOHE) in an effort to formulate the National e-Learning Policy.

This is in line with the vision and mission of the Critical Agenda Projects (CAP) and the National Key Result Areas (NKRA) of the Ministry of Higher Education.

This study was conducted to identify the status of e-Learning and to highlight the trends and challenges of implementing e-Learning in Malaysian HEIs in terms of policy, governance, learning management systems (LMS), training, e-content development, integration in teaching and learning, quality assurance, and future e-Learning planning.

The findings of this study are outlined in the 10 chapters of this book, covering all of the aspects mentioned above.

Indeed, the sharing of best practices on e-Learning within Malaysian HEIs will enable HEIs to continue to compete in the rapidly growing development in Information and Communication Technologies (ICT).

Thus, this new development must be fully utilized to the maximum in improving the quality of teaching and learning in Malaysian HEIs.

Among the academic staff, creativity and innovation are highly sought after, especially in e-content development and delivery of online courses through the platform developed by the respective HEIs.

Finally, once again I would like thank the members of the research team, all the public HEIs and selected private HEIs and polytechnics that gave their full cooperation in making this project a success. Such sound teamwork should be cultivated to propel Malaysia towards a developed nation by the year 2020.

Wassalam.

TUAN HAJI ABDUL RAHIM BIN MD. NOOR

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Chapter 1

Introduction

Mohamed Amin Embi
Zaidan Abdul Wahab
Abdul Halim Sulaiman
Hanafi Atan

Background

The National Higher Education Strategic Plan (PSPTN), Ministry of Higher Education (MOHE), is a document that translates the direction of national higher education for the future that focuses on the development of quality human and intellectual capital. This is to realize the country's aspirations to become a developed, prosperous, and competitive nation.

To ensure that the implementation of PSPTN is according to the set phases, the Ministry of Higher Education (MOHE) has developed 21 Critical Agenda Projects or CAPs. Each of these CAPs has strategic objectives, indicators, and targets to be achieved through various planned activities. These activities must be executed either at the Ministry level or at the agency level, including all agencies under MOHE, which includes all Higher Education Institutions (HEIs).

As e-Learning has been identified as one of the Critical Agenda Projects (CAPs) and a Key Result Area (KRA) of MOHE, a comprehensive study on the status, trends, and challenges of implementing e-Learning in HEIs was conducted and funded by MOHE. Apart from achieving the targets of the e-Learning CAPs, this study is undertaken because although e-Learning has been used in Malaysian HEIs as early as the year 2000, there has been no comprehensive study on the implementation of e-Learning in Malaysian HEIs.

Research Objectives

In general, the objectives of this research are to

- i. Identify the status of e-Learning in Malaysian HEIs in terms of policy, governance, Learning Management System (LMS), training, e-Content development, integration in teaching & learning, quality assurance, and future planning.

- ii. Assess the trends and effectiveness of e-Learning in Malaysian HEIs in terms of policy, governance, Learning Management System (LMS), training, e-Content development, integration in teaching & learning, quality assurance, and future planning.
- iii. Identify the problems and challenges of implementing e-Learning in Malaysian HEIs in terms of policy, governance, Learning Management System (LMS), training, e-Content development, integration in teaching & learning, quality assurance, and future planning.

Areas & Scope of Research

On the basis of the objectives described above, this study involves eight key areas which include (i) policy, (ii) governance, (iii) Learning Management System (LMS), (iv) training, (v) e-Content development, (vi) integration in teaching & learning, (vii) quality assurance, and (viii) future plans.

This study examined three areas which include a) status of implementation, b) trends and effectiveness of implementation, and c) problems and challenges of implementation.

Methodology

The study was a survey method using online questionnaires. The samples involved e-Learning administrators, lecturers and students from 30 Malaysian HEIs, comprising of 20 public HEIs, 7 private HEIs and 3 polytechnics as follows:

Public HEIs

- i. Universiti Kebangsaan Malaysia (UKM)
- ii. Universiti Sains Malaysia (USM)
- iii. Universiti Putra Malaysia (UPM)
- iv. Universiti Malaya (UM)
- v. Universiti Teknologi MARA (UiTM)
- vi. Universiti Teknologi Malaysia (UTM)
- vii. Universiti Utara Malaysia (UUM)
- viii. Universiti Pendidikan Sultan Idris (UPSI)
- ix. Universiti Pertahanan Nasional Malaysia (UPNM)
- x. Universiti Islam Antarabangsa Malaysia (UIAM)
- xi. Universiti Malaysia Sabah (UMS)
- xii. Universiti Malaysia Sarawak (UNIMAS)
- xiii. Universiti Sains Islam Malaysia (USIM)
- xiv. Universiti Tun Hussain Onn Malaysia (UTHM)
- xv. Universiti Teknikal Malaysia (UTEM)
- xvi. Universiti Malaysia Kelantan (UMK)
- xvii. Universiti Malaysia Terengganu (UMT)
- xviii. Universiti Malaysia Perlis (UniMAP)
- xix. Universiti Malaysia Pahang (UMP)
- xx. Universiti Sultan Zainal Abidin (UniSZA)

Private HEIs

- i. Asia e-University (AEU)
- ii. Open University Malaysia (OUM)
- iii. Multimedia University (MMU)
- iv. Wawasan Open University (WOU)
- v. Sunway University College (SUC)
- vi. Nilai University College (NUC)
- vii. HELP University College (HUC)

Polytechnic

- i. Politeknik Ungku Omar (PUO)
- ii. Politeknik Shah Alam (PSA)
- iii. Politeknik Johor Bahru (PJB)

Research Instruments

A total of three sets of questionnaire were developed and used for this study. They are

- i. instrument for e-Learning administrators called the Malaysian HEIs e-Learning Questionnaire (IT Manager) or MLeLQ (M) (see Appendix 1) containing 74 items.
- ii. instrument for lecturers called the Malaysian HEIs e-Learning Questionnaire (Instructor) or MLeLQ (I) (see Appendix 2) containing 35 items.
- iii. instrument for students called the Malaysian HEIs e-Learning Questionnaire (Students) or MLeLQ (S) (see Appendix 3) containing 20 items.

All instruments were made available online using the services of SurveyMonkey (www.surveymonkey.com).

Respondents

A total of 10,019 respondents filled out all three online questionnaires. However, only 7,962 responses (90%) were selected for analysis because 2,057 responses were incomplete. A total of 26 respondents (90%) completed the online questionnaire for e-Learning administrators. The number of respondents who completed the online questionnaire for lecturers were 1,635 (65%), while 862 lecturers did not complete the questionnaire. For students, a total of 6,301 (85%) completed the online questionnaire compared to a total of 1,192 who did not complete it.

Research Team

The main research team comprised of members of the Council of the Malaysian Public HEIs e-Learning Coordinators (MEIPTA) of the Research Universities, that is,

- i. Prof. Dr. Mohamed Amin Embi (UKM) - **Head**,
- ii. Assoc. Prof. Dr. Zaidan Abdul Wahab (UPM),
- iii. Assoc. Prof. Dr. Abdul Halim Sulaiman (UM), and
- iv. Assoc. Prof. Dr. Hanafi Atan (USM).

Associate researchers were

- i. Assoc. Prof. Dr. Mahamod Ismail (UKM),
- ii. Assoc. Prof. Dr. Norazah Mohd Nordin (UKM),
- iii. Assoc. Prof. Dr. Supyan Hussin (UKM), and
- iv. Dr. Afendi Hamat (UKM).

Organisation of Chapters

This report comprises of 10 chapters. Chapter 1 provides an introduction to the study reported in this book. Chapter 2 describes the findings related to e-Learning policies, while Chapter 3 presents the findings related to e-Learning governance. Chapter 4 is devoted to the discussion of the findings related to Learning Management System (LMS), while Chapter 5 describes the findings related to e-Learning training. Aspects related to e-Content development are presented in Chapter 6, while findings related to the integration of e-Learning in teaching and learning are discussed in Chapter 7. Finally, Chapter 8 is devoted to describing the findings related to quality assurance and future plans for e-Learning in the respective HEIs. The summary and conclusions are presented in Chapter 9, while the proposed improvements and policy implications are discussed in Chapter 10.

Chapter 2

e-Learning Policy in Malaysian Higher Education Institutions

Hanafi Atan

Mohamed Amin Embi

Supyan Hussin

Introduction

A policy is a document which provides general guidelines for an institution or organization to achieve certain results, goals, or objectives. It is different from the processes, procedures, or protocols that are implemented to attain these results, goals, or objectives. Usually, a policy is approved by the executive members of an institution or organization and is carried out by officers and staff at the lower level. Policies are important because they provide guidelines to develop strategies and subsequently relevant action plans to achieve a result, aim, or objective. It focuses on action plans and promotes optimum use of manpower which indirectly prevents wastage. With the existence of a policy, objectives can be realized. In addition, the implementation process will be more structured and systematic, which ensures the effectiveness of the expected results or outcomes. To implement e-Learning in HEIs, e-Learning policies should be formulated.

This chapter will describe how e-Learning policies were formulated and implemented among Malaysian HEIs, how these policies were drafted, which bodies approved the policies, and how the policies were disseminated and promoted among the staff and students of the HEIs. This chapter will also describe the levels of support and commitment given by the various parties in the HEIs towards the e-Learning policy and the levels of success attained by the HEIs in implementing these e-Learning policies. This chapter also describes the level of awareness of the e-Learning policy among academic staff and their levels of compliance.

Methodology

Data were obtained from two types of respondents, e-Learning administrators and academic staff. A total of 26 e-Learning administrators responded to the HEIs Malaysian e-Learning Questionnaire (IT Manager), while a total of 1,635 academic staff completed the HEIs Malaysian e-Learning Questionnaire (Instructor).

There are 14 items from the Malaysian HEIs e-Learning Questionnaire (IT Manager) and 4 items from the Malaysian HEIs e-Learning Questionnaire (Instructor) that relate to e-Learning policy which will be discussed in this chapter.

The findings will be discussed based on two main perspectives: (i) status of implementation and (ii) trends of implementation.

Findings

Status of e-Learning Policy Implementation

Data obtained from the sample of academic staff showed some interesting findings. First, 80% of the sample surveyed indicated that e-Learning policies existed in their respective institutions (see Figure 2.1). Of these, most (92.5%) indicated that they were aware and knew about the e-Learning policy in their respective institutions (see Figure 2.2). According to them, information about the policy was mainly obtained from institutional websites (58%), circulars (57.4%), and formal training programmes conducted by their respective institutions.

In terms of compliance with the e-Learning policy, the data showed that 30.6% of academic staff complied with the policy fully, while 58.7% complied with some parts of the policy (see Figure 2.3). This shows that academic staff were not only aware of the existence of an e-Learning policy, but also carried out the e-Learning process in accordance with the guidelines set by the policy.

Out of the 26 HEIs involved in the study, only 38.5% or 10 HEIs have formulated and adopted the e-Learning policies. The remaining 61.5% or 16 HEIs still do not have any e-Learning policies (see Figure 2.4). For the HEIs having e-Learning policies, only the top management and representatives of the faculties/centres/departments were involved in formulating these policies, as shown in Figure 2.5. The data showed that none of the HEIs involved students and outsiders in the formulation of their e-Learning policies, who, by right, have vested interest in the implementation of these policies. The data also showed that in most cases, the e-Learning policies were approved by the Senate (60%) or the top management such as the Board of Council (40%), as shown in Figure 2.6.

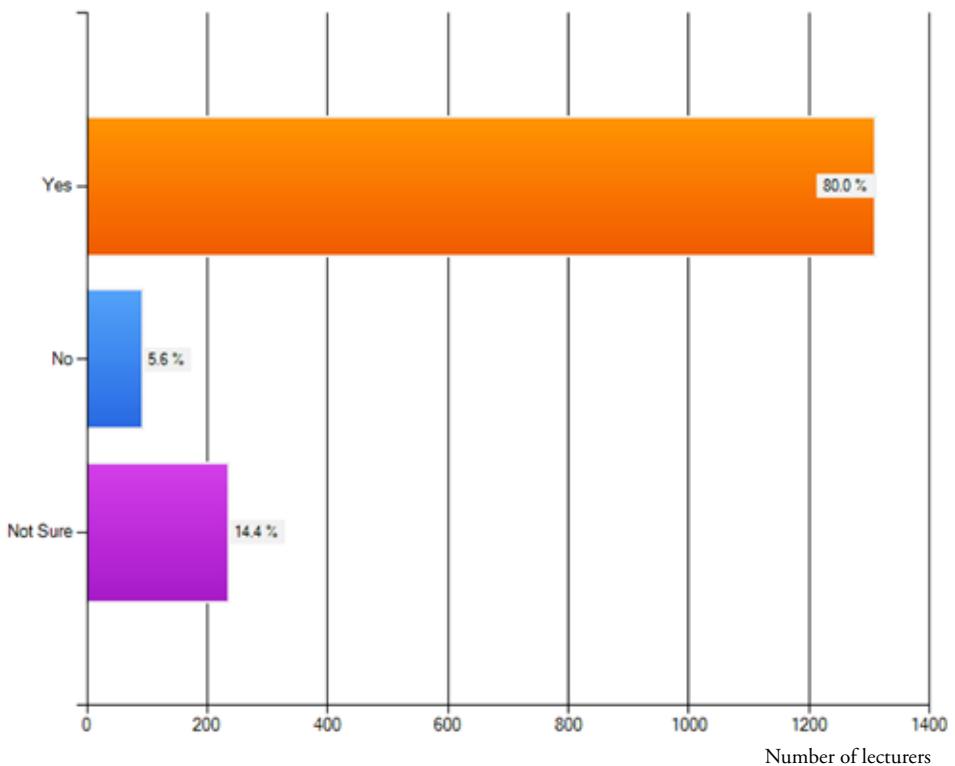


Figure 2.1: Lecturers' response on the existing e-Learning policy

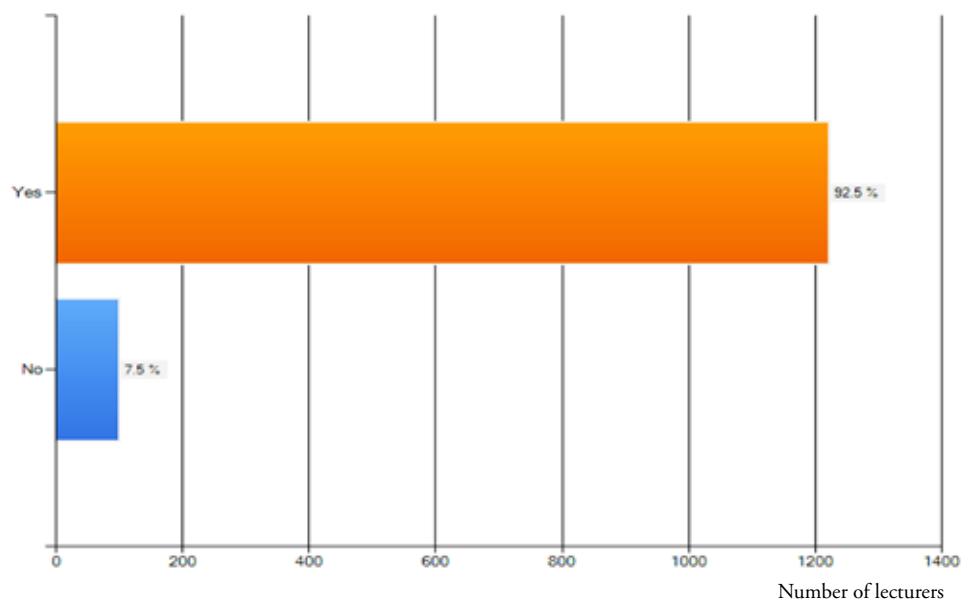


Figure 2.2: Awareness of e-Learning policy among lecturers

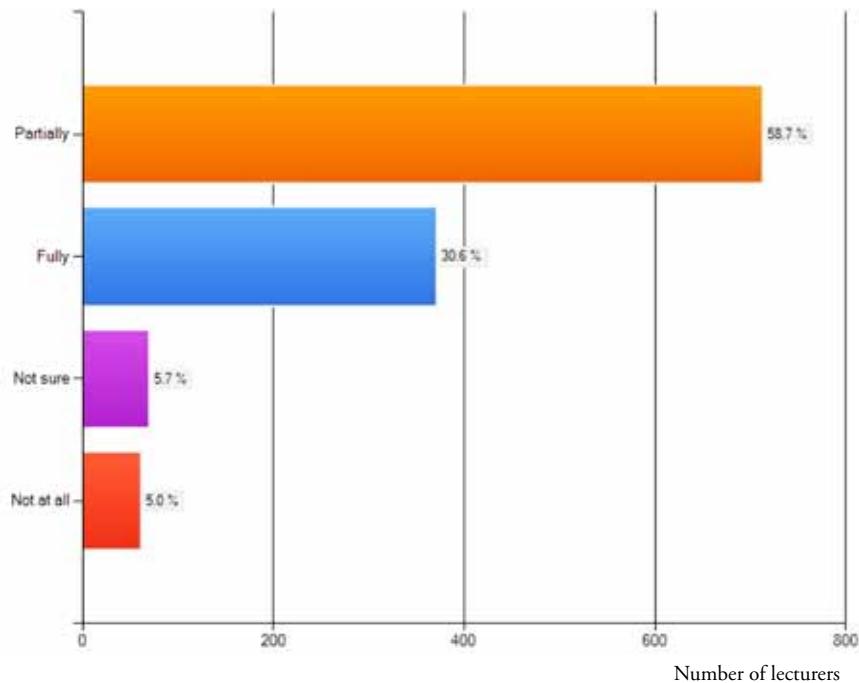


Figure 2.3: Compliance with e-Learning policy among academic staff

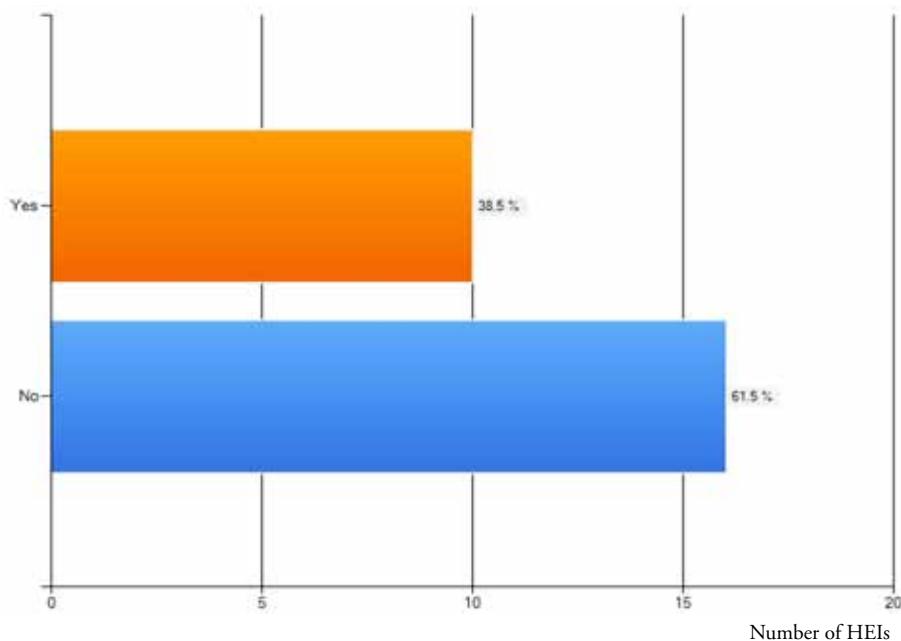


Figure 2.4: Number/Percentage of HEIs having e-Learning policies

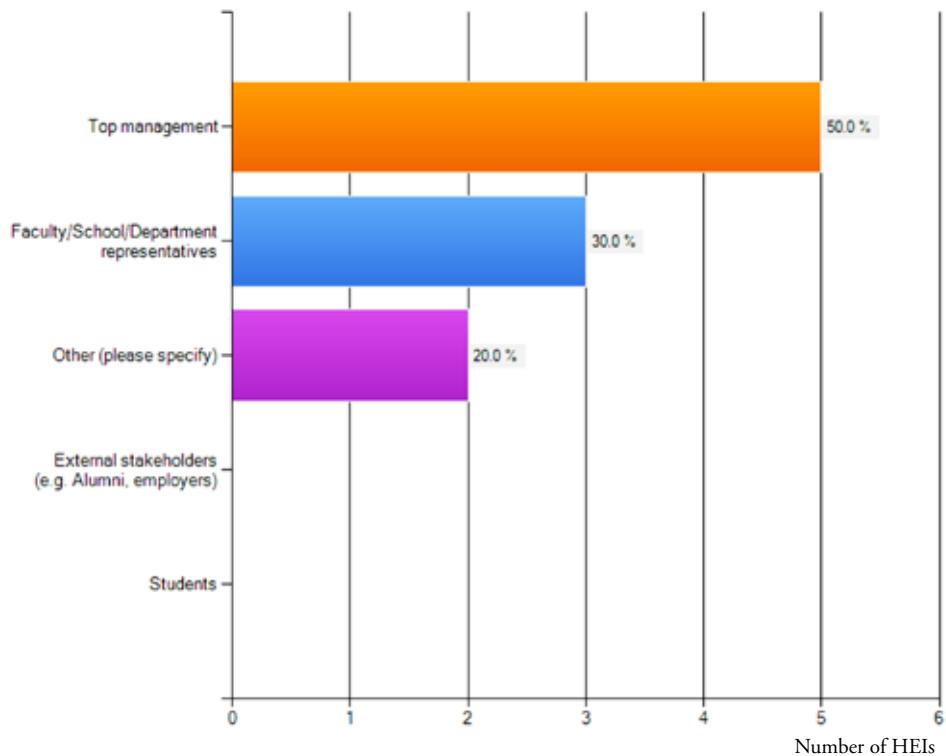


Figure 2.5: The stakeholders involved in formulating e-Learning policies

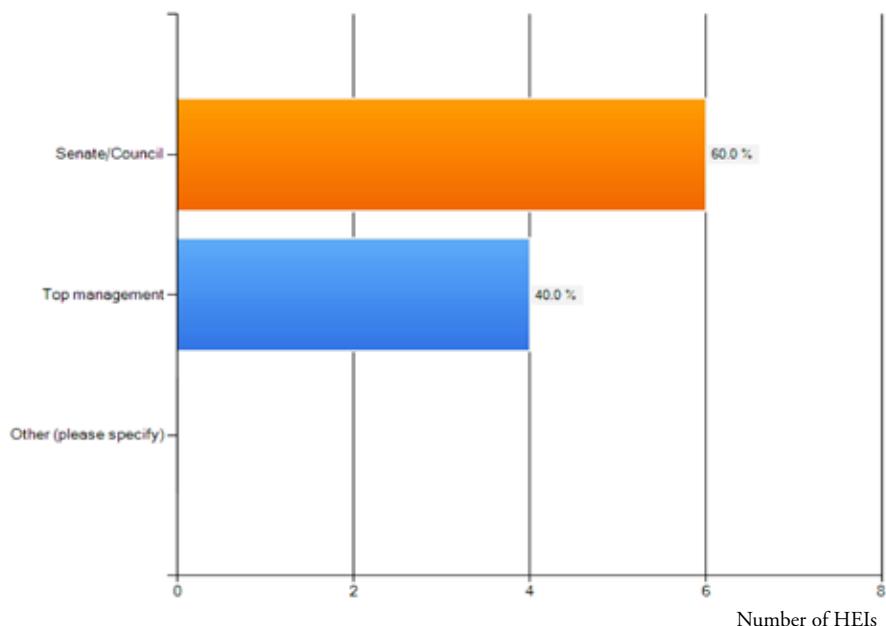


Figure 2.6: Approving bodies of e-Learning policies

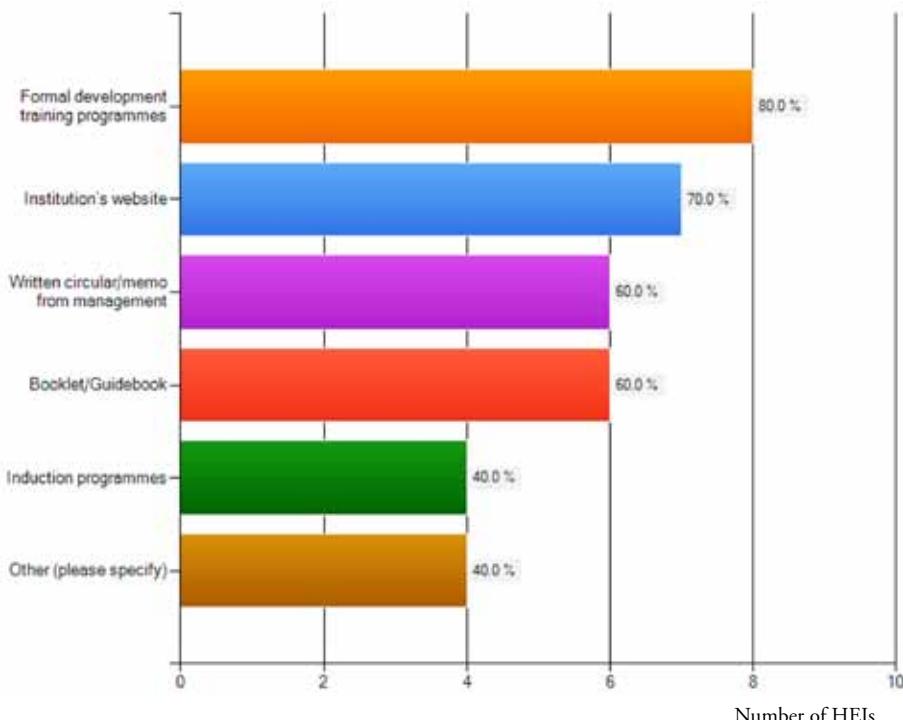


Figure 2.7: How e-Learning policy is disseminated and promoted

Figure 2.7 shows the methods used to disseminate and inform the institution community about the e-Learning policy. Data showed that formal training programmes recorded the highest percentage (80%) followed by using the institution's website (70%). Other methods include circulars or memos (60%), booklets or guidebooks (60%), and induction programmes (40%).

Trends of e-Learning Policy Implementation

Figures 2.8 and 2.9 show that almost all HEIs (90%) which already had e-Learning policies have their own implementation plans. Out of all the HEIs which had e-Learning policies, 70% make the use of e-Learning compulsory among their lecturers and students.

Nearly half of the HEIs (40%) had implemented their e-Learning policies in more than three years or between one to three years, while only two HEIs (20%) had implemented their e-Learning policies in less than a year (see Figure 2.10).

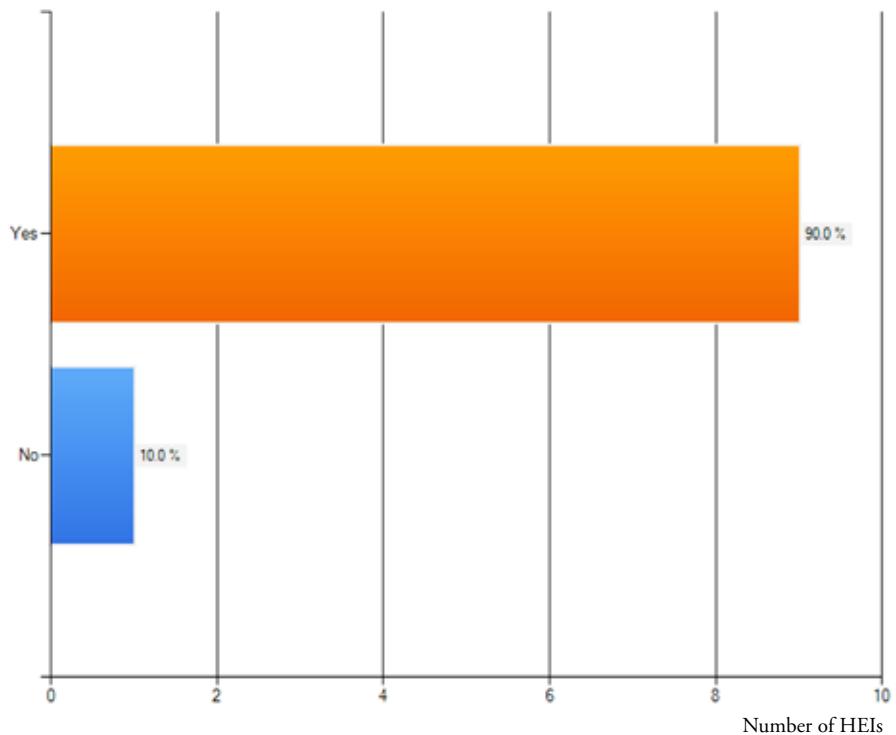


Figure 2.8: Number/Percentage of HEIs having e-Learning policy implementation plans

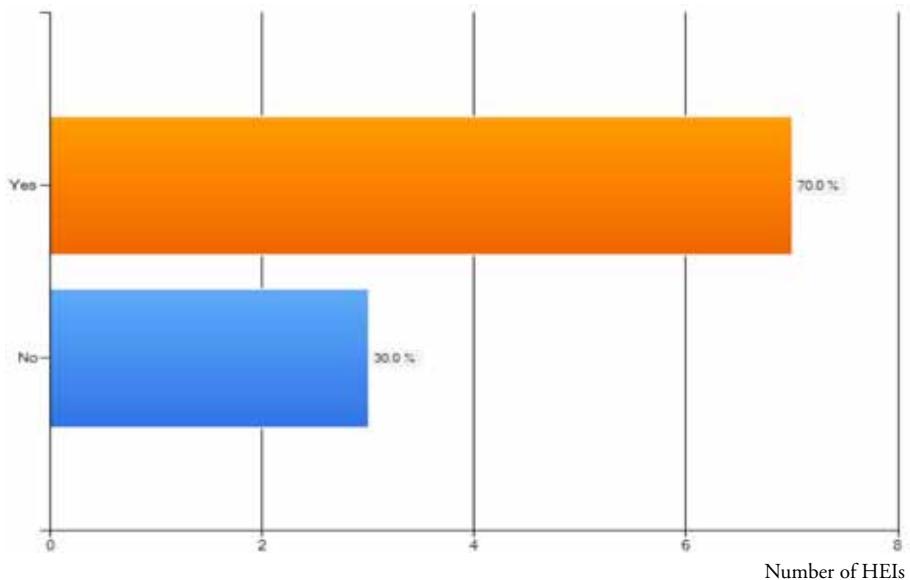


Figure 2.9: Number/Percentage of HEIs making e-Learning compulsory

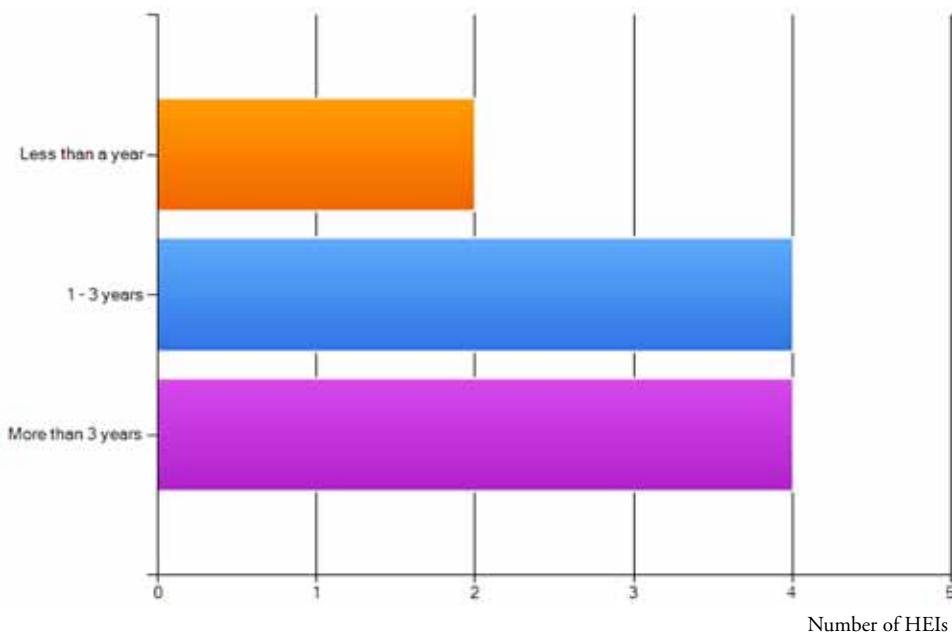


Figure 2.10: Duration of e-Learning policy implementation

Figure 2.11 shows the percentage of components contained in e-Learning policies. Data showed that the least mentioned components in e-Learning policies were incentives, awards, and quality assurance. For most of the HEIs involved in this study (90%), e-Learning policies have been made part of their strategic plans (see Figure 2.12), while 70% make the e-Learning agenda a part of their KPIs (refer to Figure 2.13). Figure 2.14 shows the number of HEIs with clear e-Learning policy implementation plans. The data showed that out of the 10 HEIs having e-Learning policies, 4 do not have clear e-Learning policy implementation plans.

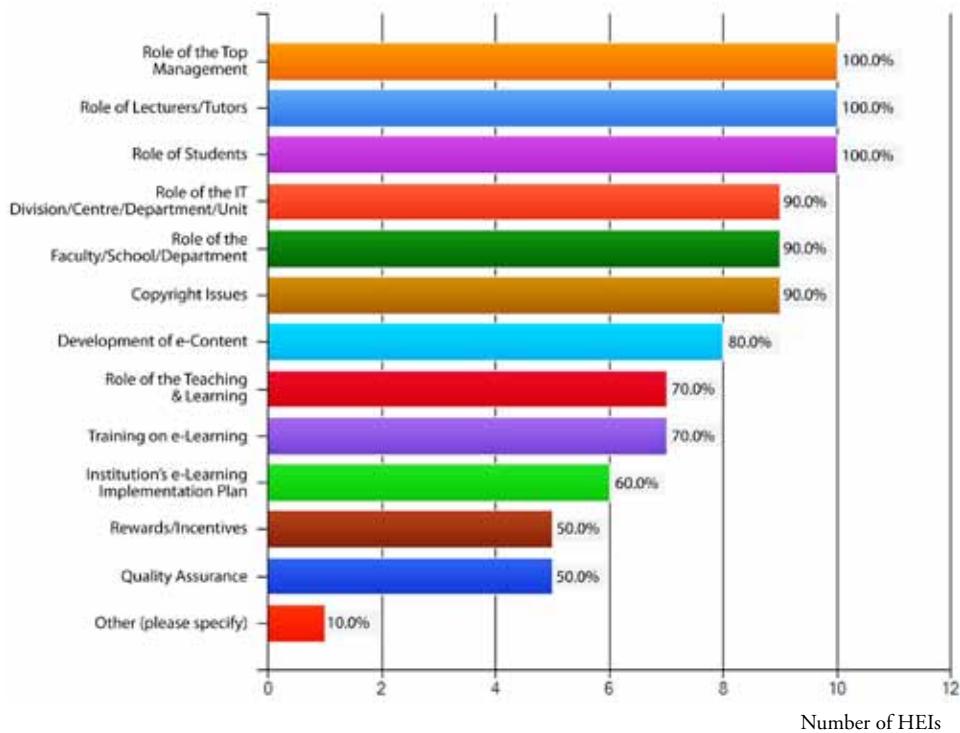


Figure 2.11: The components included in e-Learning policies

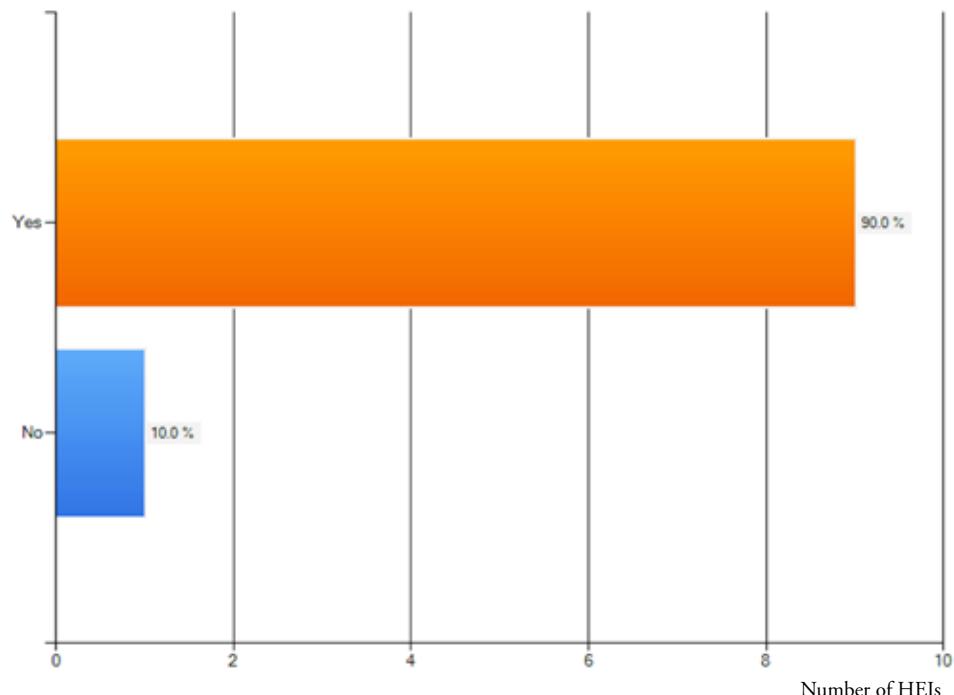


Figure 2.12: Number/Percentage of HEIs that make e-Learning policies a part of their institutional strategic plan

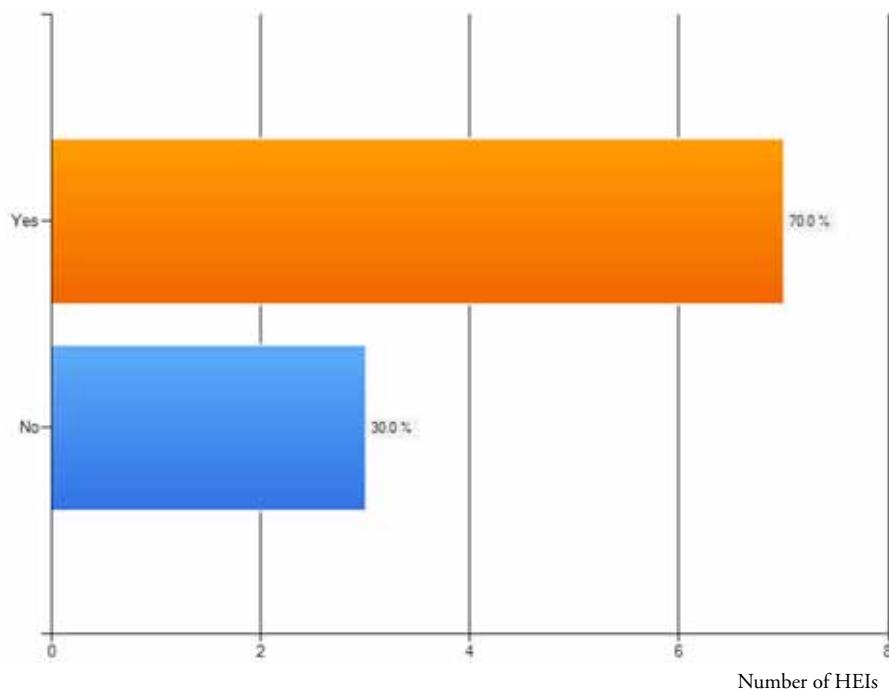


Figure 2.13: Number/Percentage of HEIs that make e-Learning policies a part of their institutional KPIs

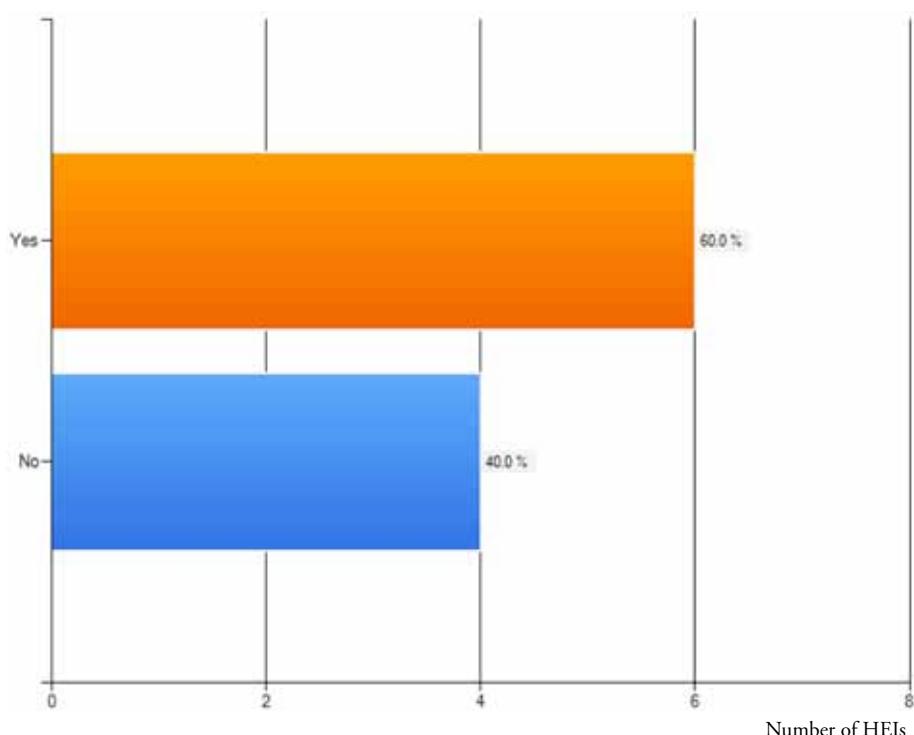


Figure 2.14: Number/Percentage of HEIs with clear e-Learning policy implementation plan

In terms of e-Learning policy awareness, among the 10 HEIs with e-Learning policies, the e-Learning administrators believe that the level of awareness among the academic staff in their respective institutions is satisfactory. Six HEIs pointed out that the level of their e-Learning policy awareness among the academic staff was in the range of 76–100%; one HEI was in the range of 51–75%; three HEIs were at the 26–50% range, and the remaining four HEIs had the lowest level of awareness, i.e. 0–25% (see Figure 2.15).

In terms of success in implementing e-Learning, the data shows satisfactory results, as clearly shown in Figure 2.16. The figure shows that eight HEIs have successfully implemented their e-Learning plans, each achieving a success level of 51–100%, while 12 out of 20 HEIs stated a success level between 0 to 50% only so far.

Figure 2.17 shows the percentage of support of the various stakeholders in the implementation of e-Learning policy in Malaysian HEIs. In general, support from top management, faculty/school/department, and students was at the 76–100% level, while support from the lecturers were at the 25–50% level. This shows that the support from lecturers is less compared to the other stakeholders.

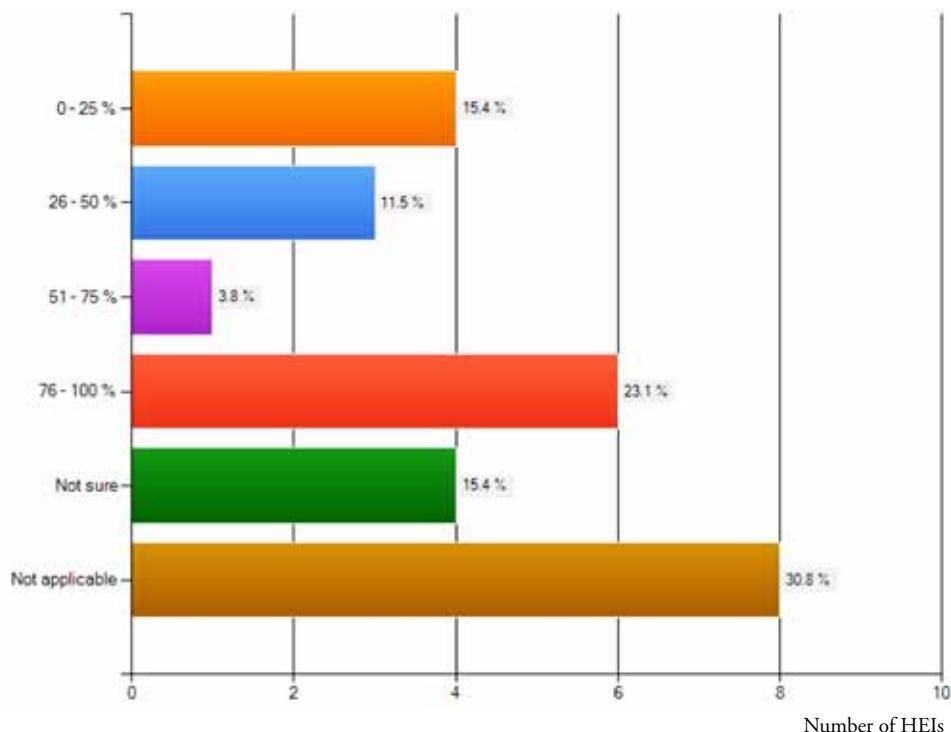


Figure 2.15: Level of awareness of e-Learning policy among academic staff

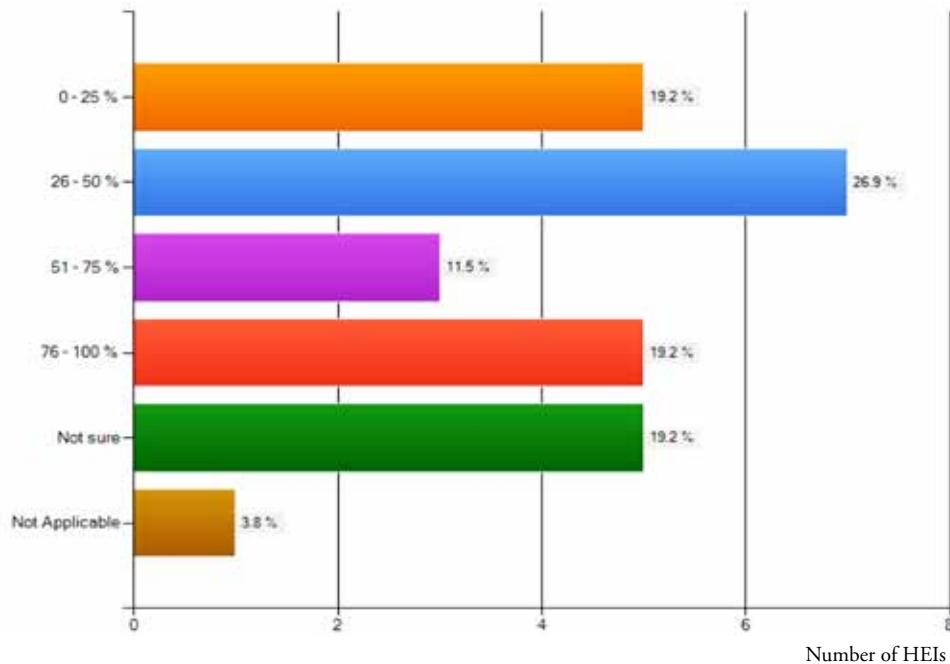


Figure 2.16: Level of success in implementing e-Learning

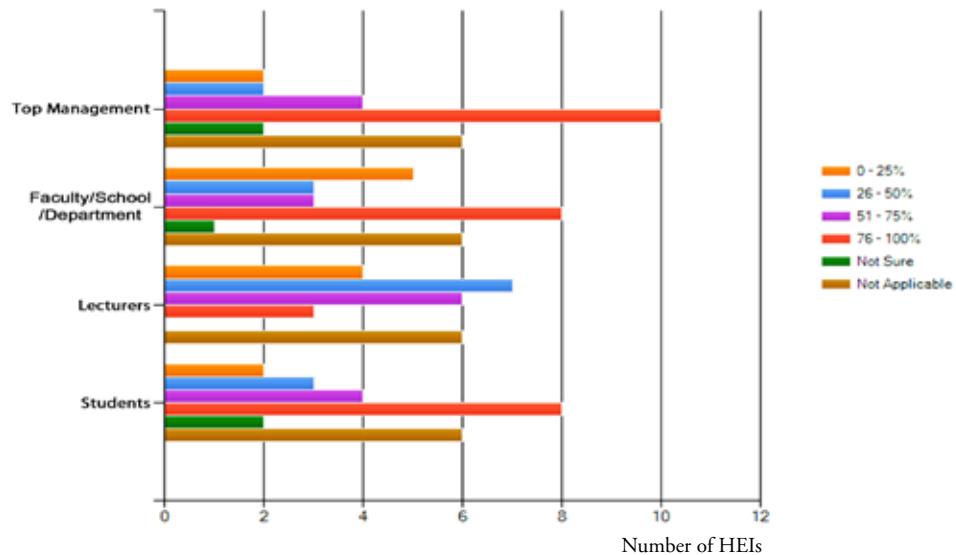


Figure 2.17: Levels of stakeholder support/commitment

Implications of Findings and Proposed Improvements

Data obtained showed that the level of e-Learning policy formulation and implementation among HEIs is at low to moderate level with only 38% HEIs having e-Learning policies and are implementing them. These low levels are due to the lack of direction from central agencies such as MOHE in terms of e-Learning policy formulation and implementation. Formulation and

implementation of e-Learning policies are carried out by the HEIs in an ad-hoc manner, without any coordination and monitoring from MOHE. Thus, MOHE should provide a mechanism to ensure that all HEIs that do not have e-Learning policies to begin formulating policies and implementing them.

For those HEIs which already have e-Learning policies, it was found that their policies are not comprehensive enough because it did not take into account the needs of stakeholders who have a vested interest in the HEIs such as alumnis, employers, and students. Therefore, it is important for MOHE to play its role in providing a comprehensive guideline on the formulation of e-Learning policies which involve all stakeholders, to HEIs that are yet to formulate their own policies.

For those HEIs that already have e-Learning policies, the implementation of their policies were found to be consistent and satisfactory. The policies were approved either by the Senate or the top management and were disseminated through various channels such as the institutions' websites, brochures, training, and others. Implementation of the formulated policies were structured and included in the HEIs' strategic plans and KPIs. The components included in the policies were found to be comprehensive and covered all levels, including the roles of top management, lecturers, students, the ICT Centre, copyright issues, training and others. In addition, the support and commitment given by the various stakeholders were found to be very good. The highest support was given by top management, followed by the faculties/centres and students, and finally, by the lecturers. The HEIs should take specific measures to ensure the commitment and involvement of the lecturers are at least as high as the commitment given by the students or higher. This is to ensure that students' e-Learning expectations are fulfilled by the lecturers.

For HEIs with e-Learning policies, their e-Learning administrators believe that a high percentage of the academic staff are aware of the existence of the policies. More importantly, they also believe that the success of implementing e-Learning in the HEIs was at a satisfactory level. This clearly shows that with the presence of policies, e-Learning can be implemented effectively. Data obtained from academic staff related to awareness and effective implementation of e-Learning also supported the opinions given by the HEIs' e-Learning administrators. Data obtained from academic staff showed that many lecturers are aware of the existence of the e-Learning policies and a high percentage of them were in compliance either fully or partly with the policies. The implication of these findings is that HEIs should formulate e-Learning policies which are transparent and known to the entire campus community and stakeholders in order to successfully implement their respective e-Learning agenda. Therefore, MOHE should coordinate the formulation and development of e-Learning policies for HEIs having no policies and make the implementation of these policies a benchmark for the success of e-Learning in Malaysian HEIs.

Conclusion

This chapter described the status and practices of e-Learning in Malaysian HEIs. Findings showed that e-Learning policies exist in some HEIs. However, the existence of e-Learning policies among HEIs is at a moderately low level. For the HEIs having e-Learning policies and which are implementing them, the process of formulating and implementing these policies were satisfactory. For these HEIs, data showed that the level of awareness of the e-Learning policy among the academic staff is high. The data also showed that there were high levels of success of implementing e-Learning among these HEIs. In relation to this, appropriate steps should be taken by MOHE to provide mechanisms and guidelines to encourage HEIs that have not established a policy to

formulate e-Learning policies and implement them. The establishment of a National Institute of e-Learning under the auspices of MOHE is the best step in providing guidance in the formulation of e-Learning policies and in coordinating and monitoring the implementation of these policies.

Chapter 3

e-Learning Governance in Malaysian Higher Education Institutions

Zaidan Abdul Wahab
Mohamed Amin Embi
Norazah Mohd Nordin

Introduction

The use of e-Learning technology in HEIs is no longer an option but has become a necessity. e-Learning technology that is used optimally and effectively can position HEIs at a more competitive level, especially in the administration of programmes offered. The use of effective, user-friendly e-Learning which is well accepted among academic staff and students would need a complete governance structure with clear and unambiguous roles of each stakeholder to ensure a smooth implementation of e-Learning. This chapter reviews and discusses the prevalent study in relation to e-Learning governance in HEIs, especially in terms of practice, responsibility, and effectiveness of governance that exist in Malaysian HEIs.

Methodology

Data related to e-Learning governance was obtained from the 26 e-Learning administrators who filled out the Malaysian HEIs e-Learning Questionnaire (IT Manager) or MLeLQ(M). Analysis of the data related to governance involved 11 items from the MLeLQ (M). The findings were discussed on the basis of three main perspectives, namely (i) status of e-Learning governance, (ii) trends involving e-Learning governance, and (iii) problems and challenges of e-Learning governance in Malaysian HEIs.

Findings

Status of e-Learning Governance

In terms of e-Learning governance, only five HEIs (19.2%) did not have a dedicated centre/division/department/unit specifically to manage the implementation of e-Learning in their respective institutions (see Figure 3.1). As shown in Figure 3.2, typically, e-Learning governance is placed under the Information Technology Centre (61.5%) followed by the Academic Development Centre (38.5%) and the Centre for Teaching and Learning (34.5%) of the respective institutions. Only seven HEIs (26.9%) had e-Learning Centres that function as a formal governance structure for the planning and implementation of e-Learning. Two HEIs placed governance under the responsibility of the faculties, while one HEI placed it under the responsibility of the e-Learning committee of the institution.

As shown in Figure 3.3, almost half of the HEIs (42.5%) make the e-Learning coordinators accountable for the management of e-Learning, while 23.1% of the HEIs gave the responsibility to their respective Director of the Information Technology Centre. In addition, almost all HEIs (80.8%) had e-Learning committees at their respective institutions (see Figure 3.4).

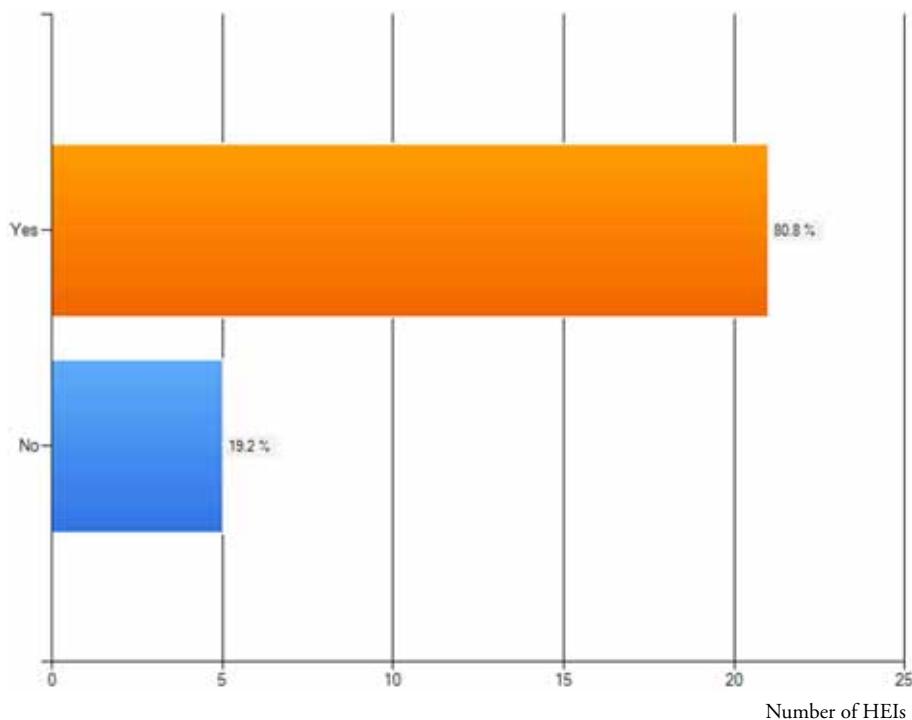


Figure 3.1: Number/Percentage of HEIs with a centre/division/department/unit dedicated to the implementation of e-Learning

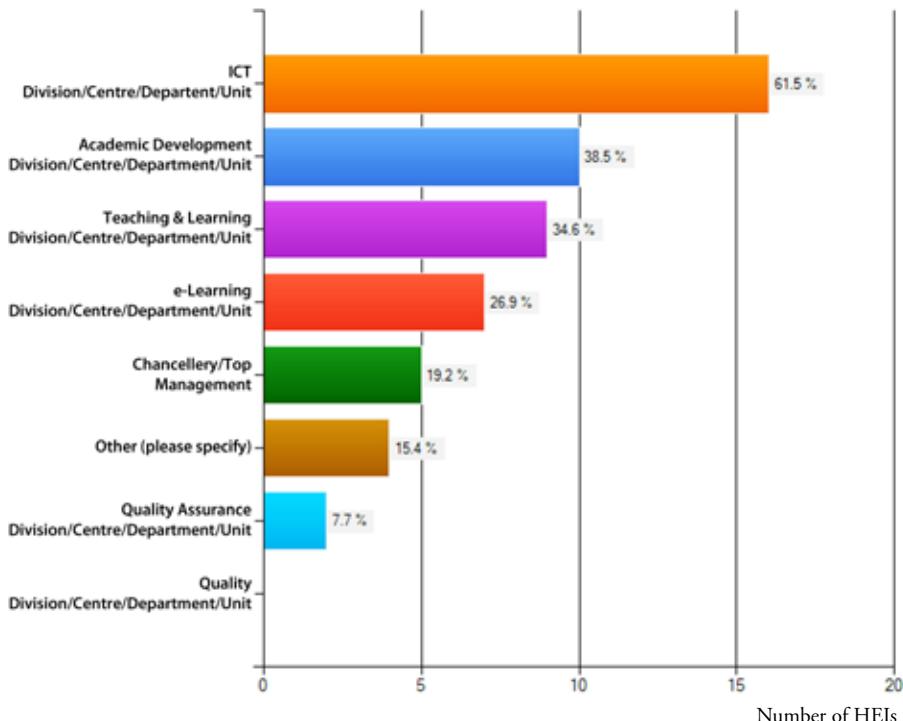


Figure 3.2: Centre/Division/Department/Unit in charge of e-Learning

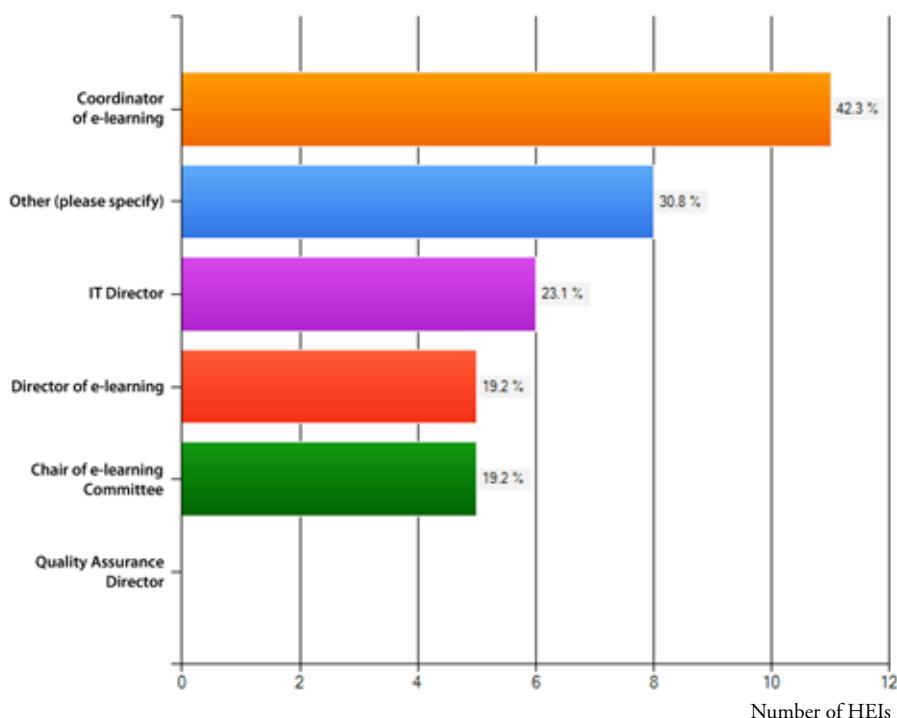


Figure 3.3: The person in charge of e-Learning

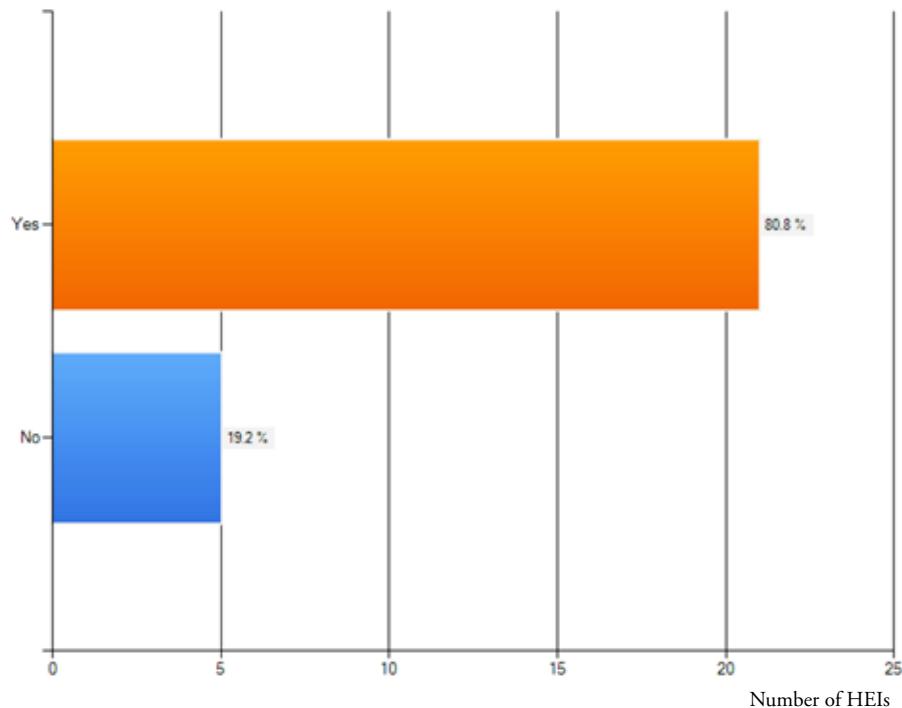


Figure 3.4: Number/Percentage of HEIs with a central e-Learning committee

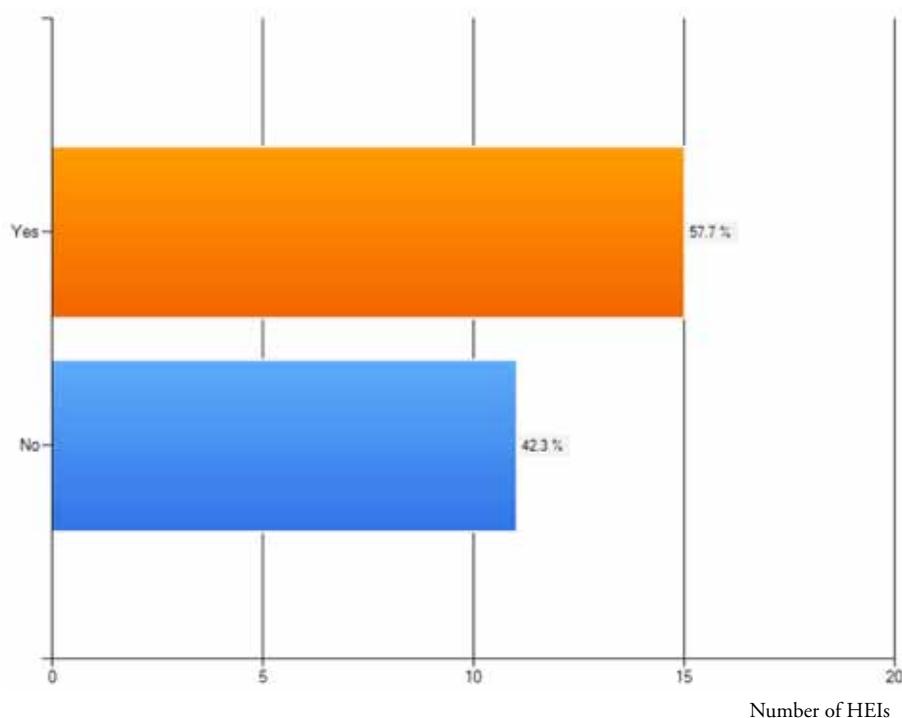


Figure 3.5: Number/Percentage of HEIs with a yearly e-Learning budget

The data specifically in Figure 3.5 shows that only half of the HEIs (57.7%) in Malaysia have allocated their annual budget to manage e-Learning. As Figure 3.6 shows, the main components that make up the annual e-Learning budget are training and software such as LMS development tools (93.3%), followed by the acquisition of hardware and provision for the physical infrastructure (66.7%). The benchmarking (26.7%) and consultancy components (26.7%) are allocated the least amount of budget.

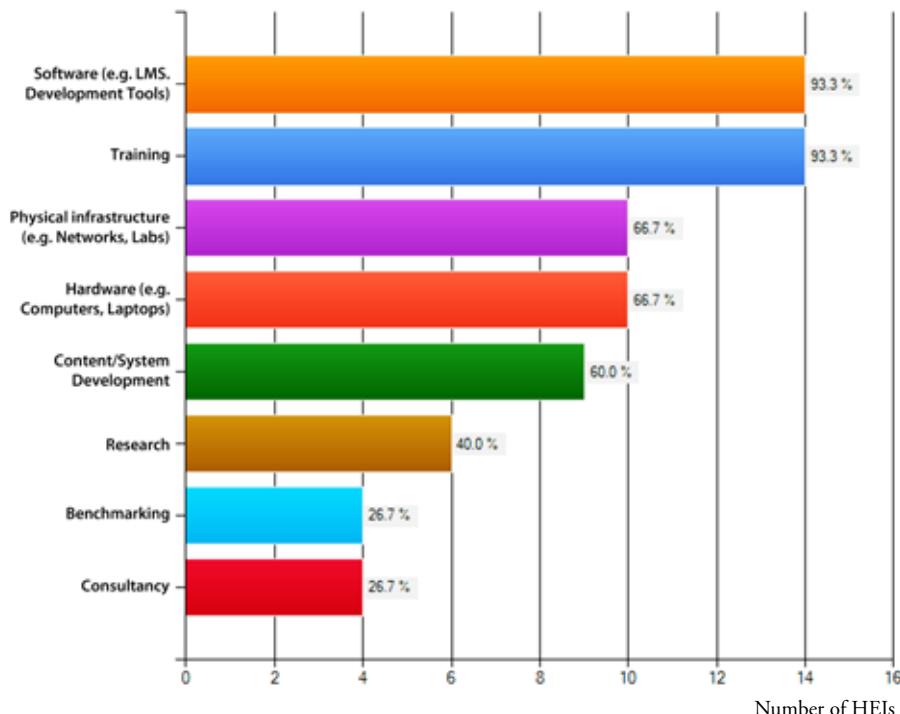


Figure 3.6: Components of the e-Learning budget

Trends of e-Learning Governance

In terms of the effectiveness of existing governance, only half of the sample of administrators involved in this study (50%) believe that their institution has an effective governance structure (see Figure 3.7). In addition, only half of the e-Learning administrators (57.7%) think that their institutions have adequate facilities for the implementation of effective e-Learning as shown in Figure 3.8. However, most e-Learning administrators (65.4%) believe that representatives at the faculty/school/department level are playing an effective role in encouraging the use of e-Learning in HEIs (see Figure 3.9).

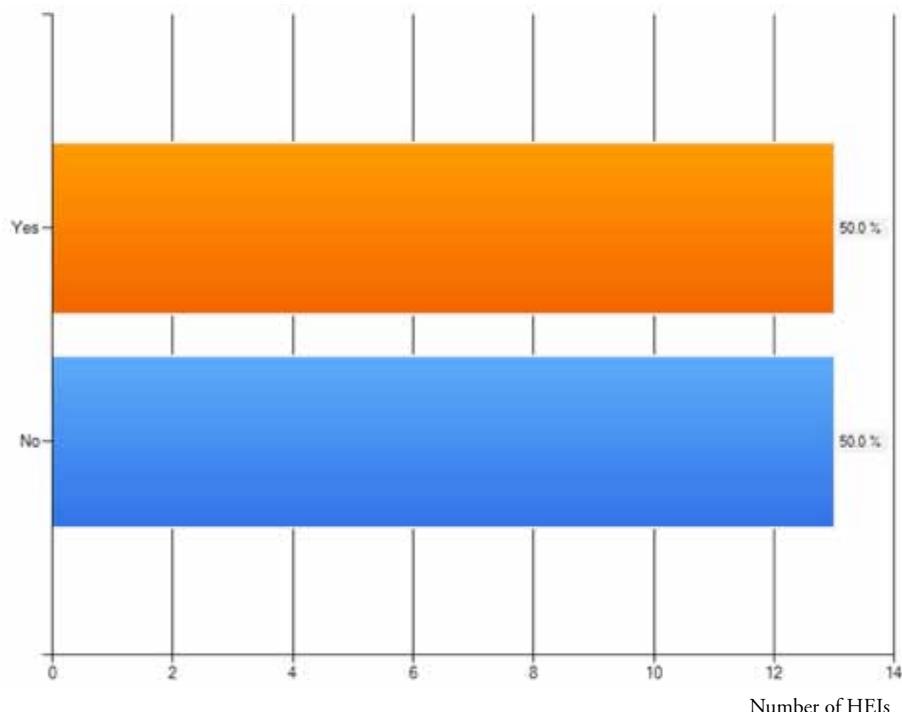


Figure 3.7: Opinion of HEIs e-Learning administrators on the effectiveness of the current governance structure

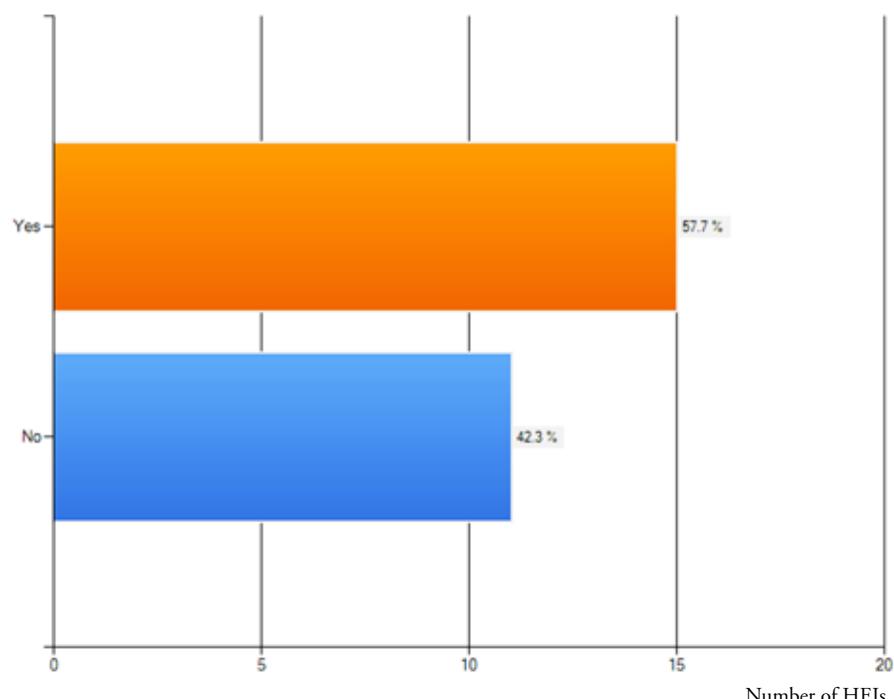


Figure 3.8: Opinion of e-Learning administrators on the adequacy of facilities for the effective implementation of e-Learning

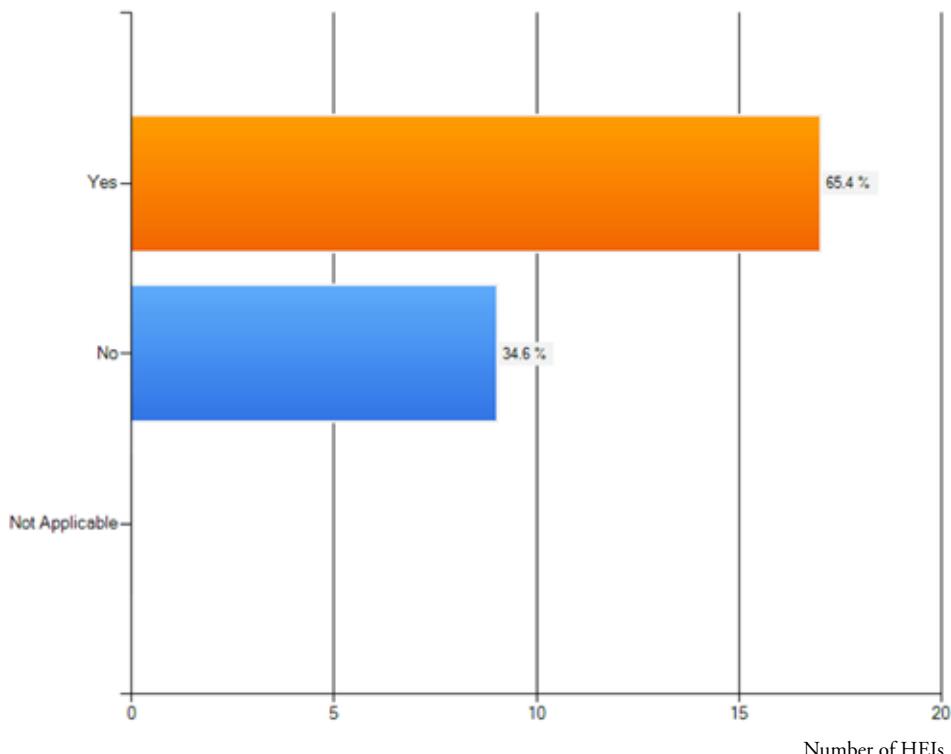


Figure 3.9: Opinion of e-Learning administrators on the role of representatives at the faculty/school/department level in encouraging the use of e-Learning

Problems & Challenges Related to e-Learning Governance

As shown in Figure 3.10, the main challenges related to the governance of e-Learning are the shortage of manpower (84.5%) and the lack of incentives for those involved in implementing e-Learning in HEIs (69.2%). In addition, other challenges encountered in relation to the governance of e-Learning are the lack of a clear e-Learning policy (61.5%), the absence of a clear governance structure (50%), and the lack of a clear line of responsibility on the task of planning and implementing e-Learning (42.3%). Seven HEIs (26.9%) felt that the absence of a dedicated e-Learning centre/unit/department is one of the main challenges. Only three HEIs (11.5%) are of the view that the main challenge is the lack of support from HEIs' top management.

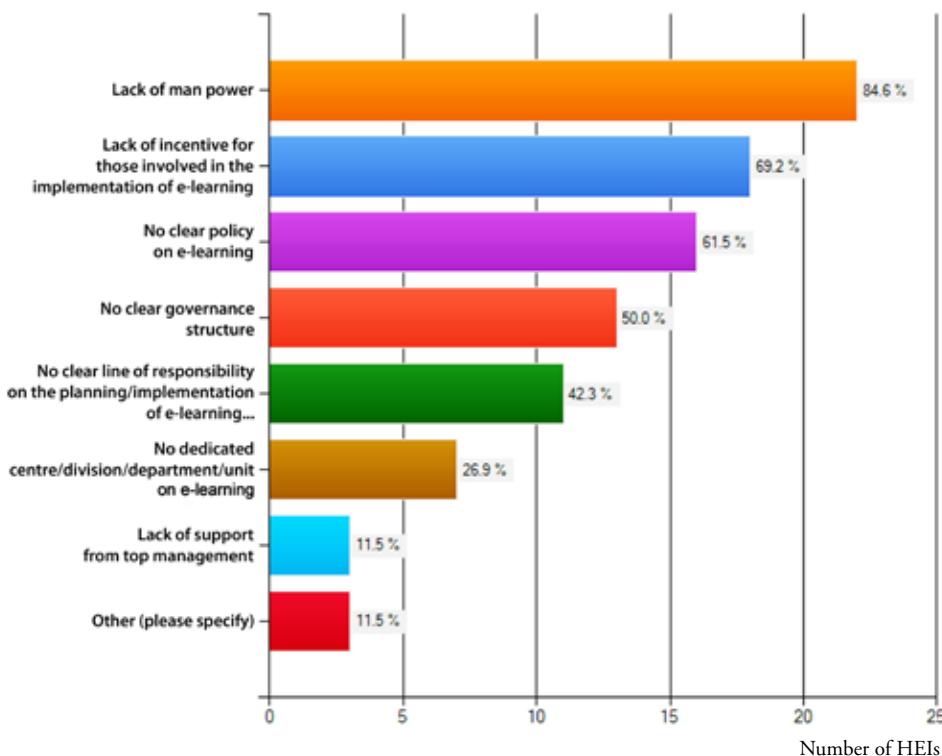


Figure 3.10: Main problems and challenges related to e-Learning governance in Malaysian HEIs

Implications of Findings & Proposed Improvements

In general, nearly 80% of HEIs already have a dedicated centre/department/unit to manage e-Learning in their respective institutions. The main difference is related to the governance of e-Learning in terms of the placement of the responsibility of managing e-Learning. There are some HEIs that place the primary responsibility of managing e-Learning on their Information Technology Centre and Academic Development Centre. There are also HEIs that place the responsibility on the faculties or the institution's e-Learning committee. The diversity in placing the responsibility of managing e-Learning, as shown in the data, clearly depicts that HEIs do not have a particular structure that can be used to ensure smooth implementation of e-Learning in their respective institutions. For a sound governance structure with clearly defined roles and responsibilities in accordance with the appropriate governance hierarchy, MOHE should make a policy whereby all HEIs using e-Learning must establish an e-Learning governance structure in their respective institutions.

This study also implies that each HEI must have a comprehensive e-Learning policy, which includes not only the establishment of a dedicated e-Learning centre/department/unit, but also meeting the needs of an e-Learning infrastructure and human resources. The component of human resources will be able to help each HEI to recruit and put in place skilled managers/officers. Ongoing training for new or existing managers/officers should be continued to be offered either by the respective institutions or by AKEPT. These training programmes should also be closely monitored. AKEPT must also be sensitive to the training needs of HEIs by continuously offering training programmes that are relevant and are able to expose e-Learning managers/officers to the

best practices in e-Learning governance and the latest e-Learning technologies. To ensure the effectiveness of the training programmes or activities organised, the HEIs, AKEPT, and MOHE should systematically monitor each programme.

Although the majority of the HEIs has the support of top management, support in the form of incentives to practitioners of e-Learning, a special budget for the development and growth of e-Learning, should be established and strengthened. This study also implies that each HEI, AKEPT, and MOHE need to put the e-Learning annual budget component as one of the most important components in the annual budget. This is important to enable each HEI to compete with other HEIs in the global virtual education arena.

Conclusion

This chapter described the status and effectiveness of e-Learning governance in Malaysian HEIs from the perspective of e-Learning administrators involved in this study. The findings contained in this chapter showed that the awareness on the need for effective e-Learning governance to implement e-Learning in HEIs is very important. Thus, some views and suggestions on improvement measures have been highlighted for further action by the parties involved in the management of e-Learning in HEIs in Malaysian HEIs.

Chapter 4

Learning Management Systems in Malaysian Higher Education Institutions

Afendi Hamat
Mohamed Amin Embi
Abdul Halim Sulaiman

Introduction

Learning Management Systems or LMS is an information system designed to facilitate the management of online courses. Other terms used for this system include Course Management Systems (CMS) and Virtual Learning Environment (VLE). LMS and other equivalent systems have been widely used in universities and colleges around the world. Among the key factors that made the use of LMS popular are its relatively low cost and the low level, basic user skills required to use it.

LMS can be divided into two categories: proprietary and open source. An example of a proprietary LMS is Blackboard, while Moodle is an example of an open source LMS system which is popular and widely used because it is free and can be modified. This chapter discusses the study findings in relation to the practices, trends, and challenges in implementing LMS in Malaysian HEIs.

Methodology

Data related to LMS were derived from 26 e-Learning administrators who filled up the Malaysian HEIs e-Learning Questionnaire (IT Manager), 1,635 Malaysian HEIs lecturers who completed the e-Learning Questionnaire (Instructor), and 6,301 students who filled up the Malaysian HEIs e-Learning Questionnaire (Student). Analysis of this section involves 14 items from the Malaysian HEIs e-Learning Questionnaire (IT Manager), 9 from the Malaysian HEIs e-Learning Questionnaire (Instructor) and 6 from the Malaysian HEIs e-Learning Questionnaire (Student). The results will

be discussed in relation to three main aspects, namely (i) status of LMS implementation (ii) trends of LMS, and (iii) problems/challenges in implementing LMS in Malaysian HEIs.

Findings

Status of LMS

Figure 4.1 shows that all (100%) 26 HEIs involved in this study already have an LMS. Most (57.7%) (Figure 4.2) are using Open Source platforms, while 34.6% purchased commercial LMS and 15.4% developed their own. The data show (see Table 4.1) that 12 HEIs are using Moodle, while two are using the Claroline platform. In addition, six HEIs purchased their LMS from local vendors, while two HEIs purchased Blackboard, an international commercial LMS. As shown in Figure 4.3, half (50%) of the HEIs involved have been using their LMS since more than three years, 30% for between one and three years, and 19.2% have been using it since less than a year.

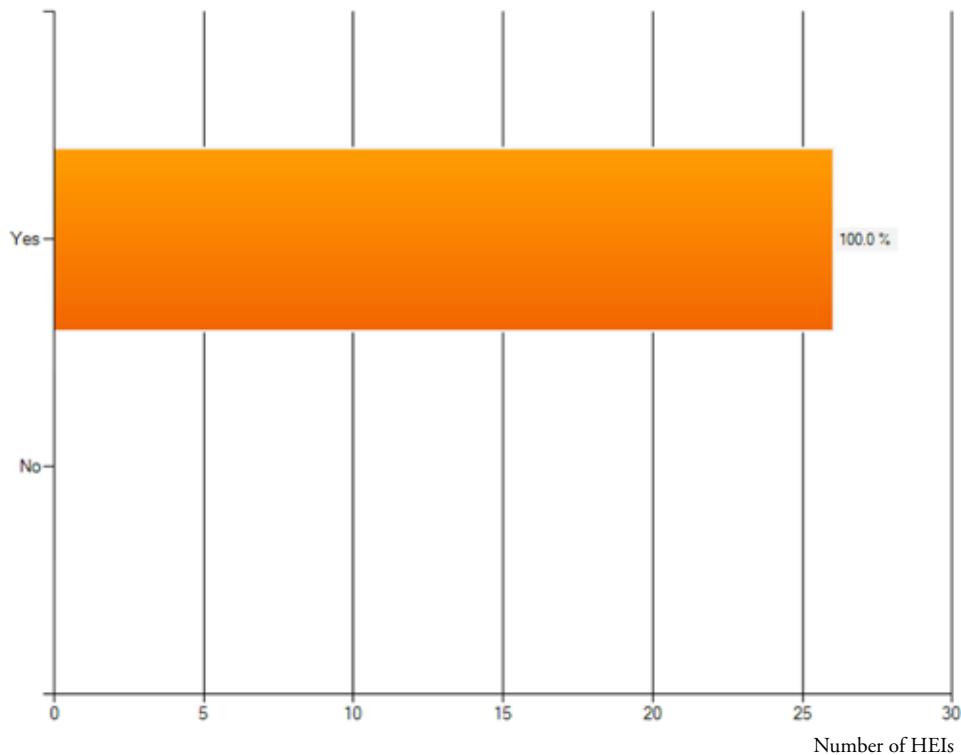


Figure 4.1: Number/Percentage of Malaysian HEIs having a Learning Management System

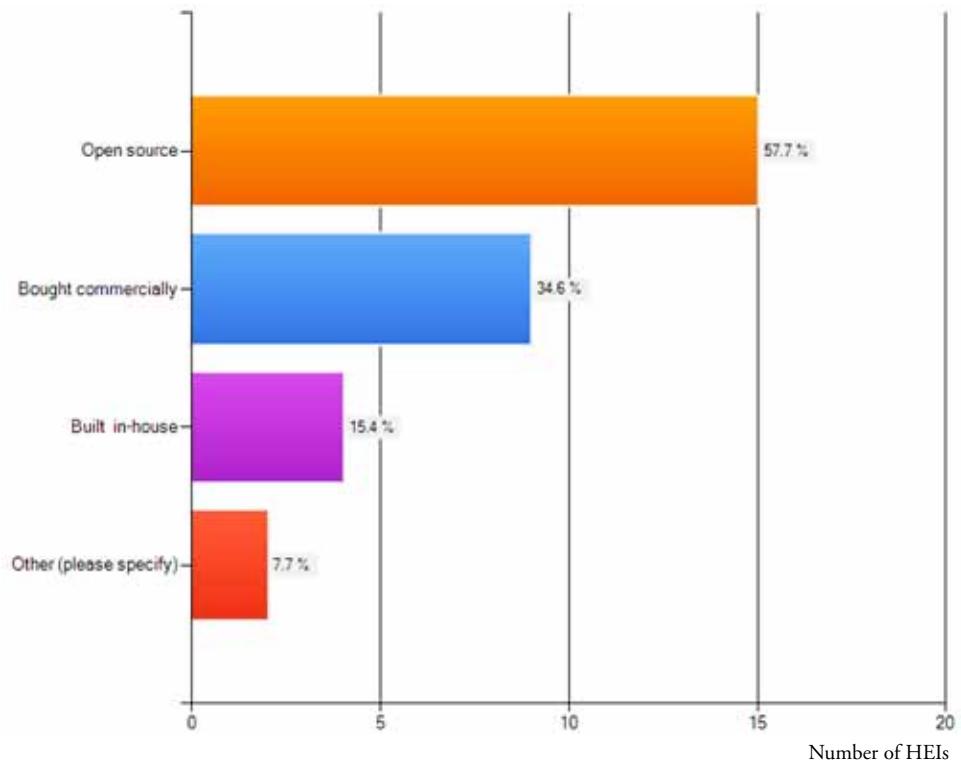


Figure 4.2: How LMS was acquired/developed

Table 4.1: Comparison of LMS in Malaysian HEIs

HEIs	Acquisition Method	Type/Name of LMS	Remarks
Universiti Kebangsaan Malaysia	Purchased from local vendor	SPIN	Customized
Universiti Putra Malaysia	Purchased from local vendor	PutraLMS	Customized
Universiti Malaya	Open Source	Moodle	Customized
Universiti Sains Malaysia	Open Source	Moodle	Customized
Universiti Teknologi Malaysia	Open Source	Moodle	Customized
Universiti Teknologi MARA	Purchased from local vendor	iLearn System	Customized
Universiti Islam Antarabangsa Malaysia	Purchased from local vendor	LearningCare	
Universiti Pendidikan Sultan Idris	Open Source	MyGuru2	Customized
Universiti Utara Malaysia	Open Source	Moodle	Customized
Universiti Malaysia Sabah	Open Source	Moodle	Customized
Universiti Malaysia Sarawak	Open Source	Moodle	Customized
Universiti Malaysia Perlis	Open Source	Claroline	

Universiti Malaysia Pahang	Purchased from local vendor		Customized
Universiti Malaysia Kelantan	Open Source	Moodle	Customized
Universiti Malaysia Terengganu	Open Source	Moodle	
Universiti Pertahanan Nasional Malaysia	Purchased from local vendor	LearningCube	Customized
Universiti Sultan Zainal Abidin	Open Source	Moodle	
Universiti Teknikal Melaka	Open Source	Claroline	Customized
Universiti Tun Hussein Onn Malaysia	Purchased from an international vendor	Blackboard	
Universiti Sains Islam Malaysia	Purchased from local vendor	myLMS	Customized
Open University Malaysia	Developed in house	myVLE	
Asia e-University	Developed in house	LSM	
Sunway University College	Purchased from an international vendor	Blackboard	
Politeknik Ungku Omar	Open Source	Moodle	Customized
Politeknik Shah Alam	Open Source	Moodle	Customized
Politeknik Johor Bahru	Open Source	Moodle	Customized

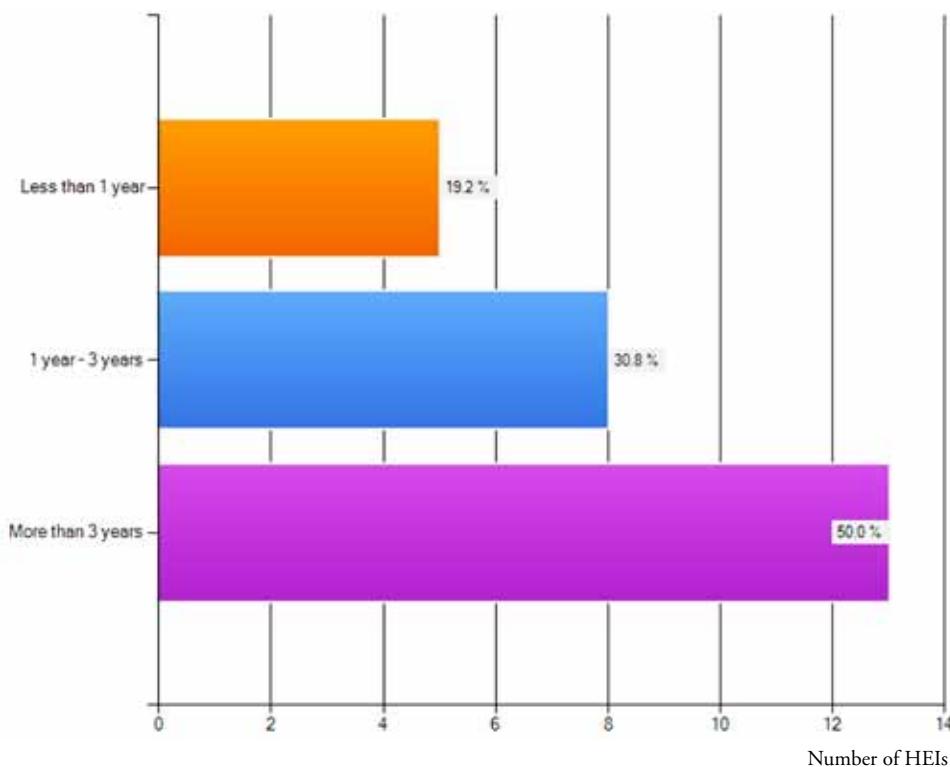


Figure 4.3: Number of years of using LMS

In terms of the major LMS components, all HEIs have the common LMS applications normally found in a standard LMS (see Table 4.2). The most widely used applications are Communications (96.2%), Course Delivery (96.2%), Productivity (88.5%), Content Development (80.8%), and Administration (73.1%). However, only a few of the HEIs (65.4%) had LMS features that encourage students' involvement, such as Groupwork and Portfolio. In terms of integration of the LMS with existing information systems, only 65.4% are integrated with the Student Information System and only 61.5% are integrated with the Staff Information System (see Figure 4.4). Other than that, only four HEIs (15.4%) integrated their LMS with the Library Information Systems and only two HEIs (7.7%) integrated it with their Financial Information Systems. Figure 4.5 shows that almost three quarters (73.1%) of the LMS available in Malaysian HEIs complied with the SCORM standards. In addition, as shown in Figure 4.6, more than half (53.8%) HEIs previously had a different LMS, but migrated to a new platform on the basis of reasons shown in Figure 4.7. The number one reason was because the new system was more cost effective (60%).

Table 4.2: Components/major applications in LMS in Malaysian HEIs

HEIs	Comm.	Productivity	Student Involvement	Admin	Course Delivery	Content Development
UKM	X	X	X	X	X	X
UPM	X	X	X		X	X
UM	X	X	X	X	X	X
USM	X	X	X	X	X	
UTM	X	X		X		
UiTM	X	X	X	X	X	X
UIAM	X	X		X	X	X
UPSI	X	X	X	X	X	X
UUM	X	X	X	X	X	X
UMS	X	X	X	X	X	X
UNIMAS	X	X	X	X	X	
UniMAP	X	X	X	X	X	X
UMP	X				X	X
UMK	X	X			X	
UMT	X	X	X	X	X	
UPNM	X	X	X		X	X
UniSZA		X	X	X	X	X
UTeM	X	X		X	X	X
UTHM	X	X		X	X	X
USIM	X	X		X	X	X
OUM	X		X	X	X	X
AeU	X	X		X	X	X
SUC	X		X		X	X
PUO	X	X	X	X	X	X
PJB	X	X	X			
PSA	X	X			X	X

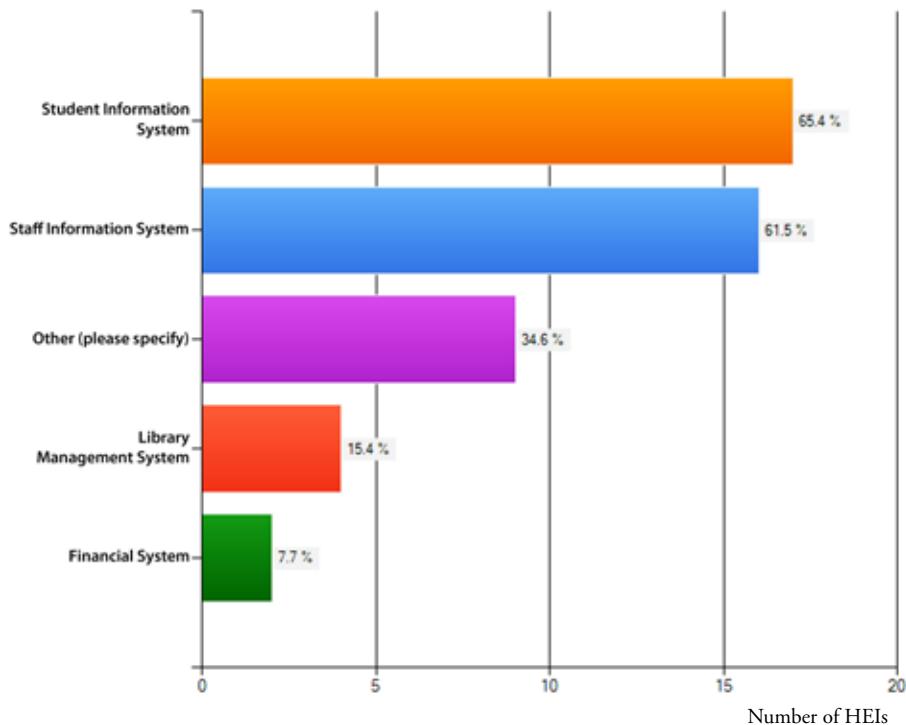


Figure 4.4: Integration of LMS with other information systems

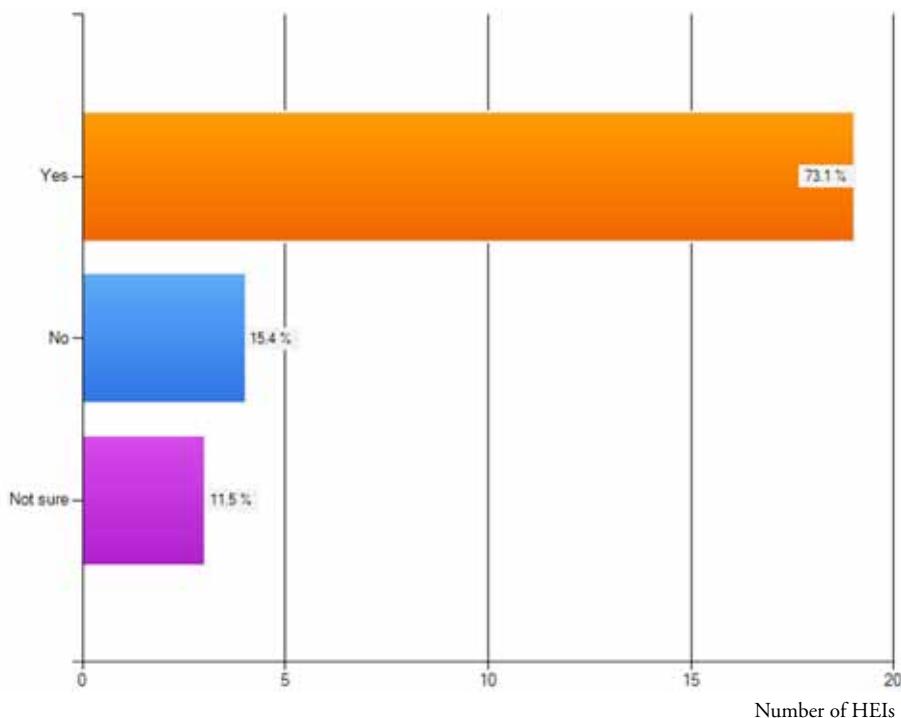


Figure 4.5: Number/Percentage of LMS that is SCORM Compliant

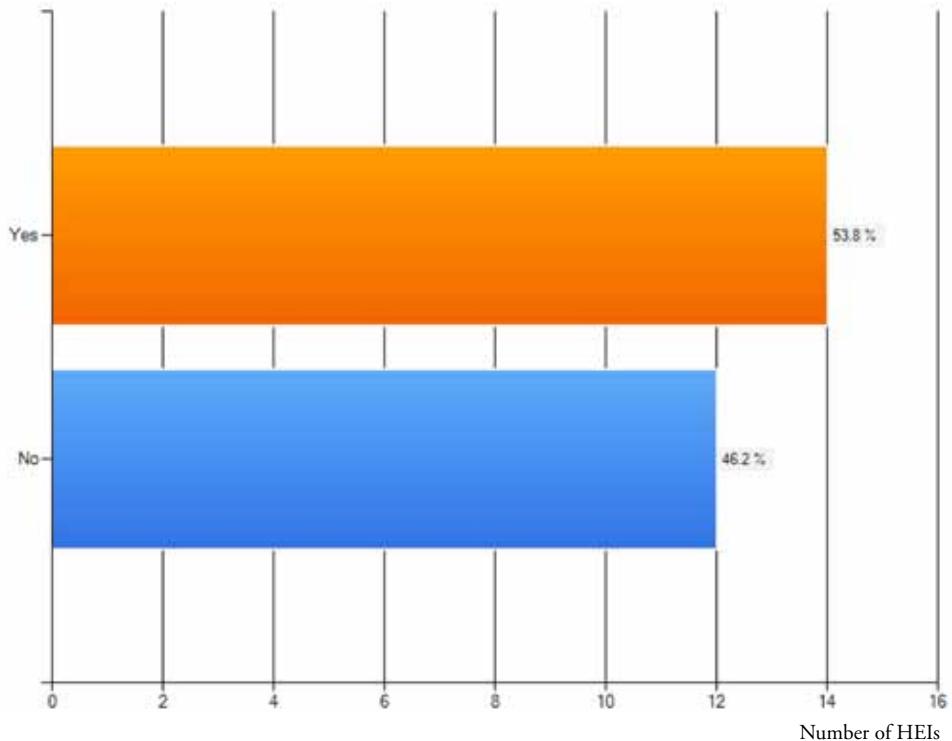


Figure 4.6: Number/Percentage of HEIs with a previous LMS from the current one

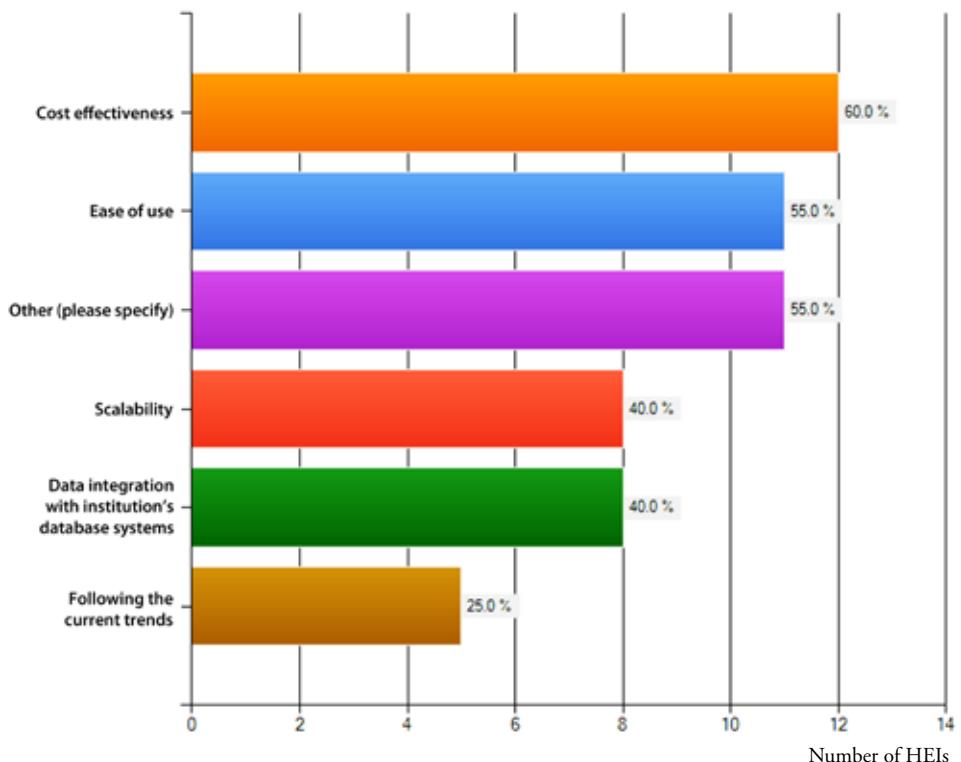


Figure 4.7: Reasons for migrating to a new LMS

Trends & Effectiveness of Learning Management Systems

According to the e-Learning administrators involved in this study, in terms of the effectiveness of the LMS, on an average, most of the features such as *accessibility* (61.5%), *reliability* (57.7%), *user friendliness* (57.7%), *security* (57.7%), *flexibility* (53.8%), and *scalability* (53.8%) are performing well, as shown in Figure 4.8. However, the integration of LMS with other systems are at a moderate level (42.3%). Most of the academic staff and students involved in this study also agreed that their LMS are performing well in terms of effectiveness (see Figure 4.9 and 4.10).

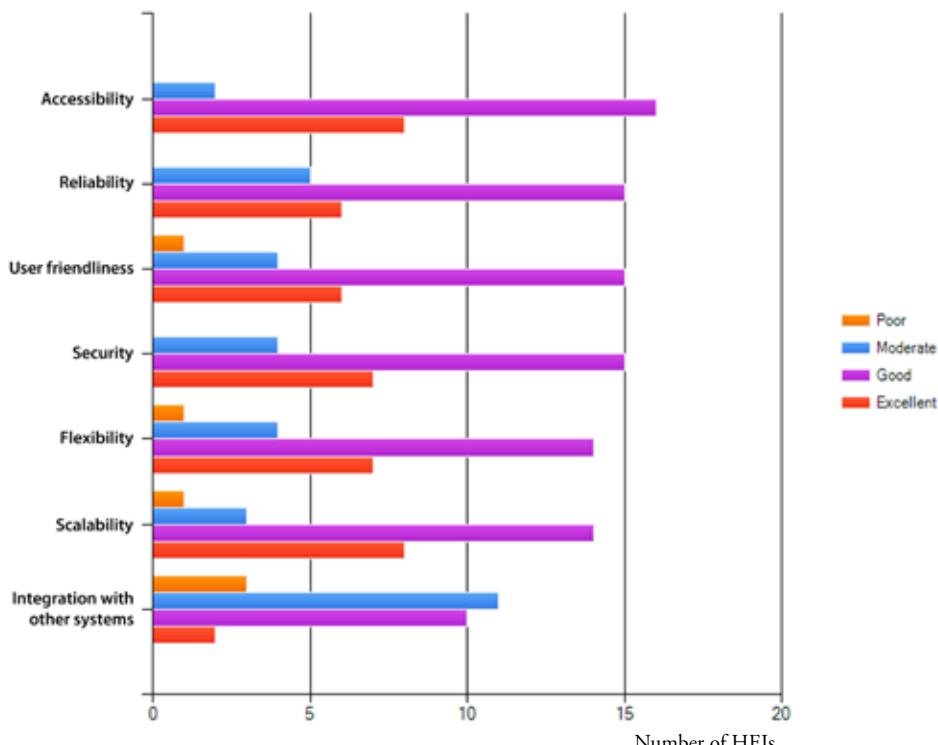


Figure 4.8: Opinion of e-Learning administrators on the effectiveness of their LMS

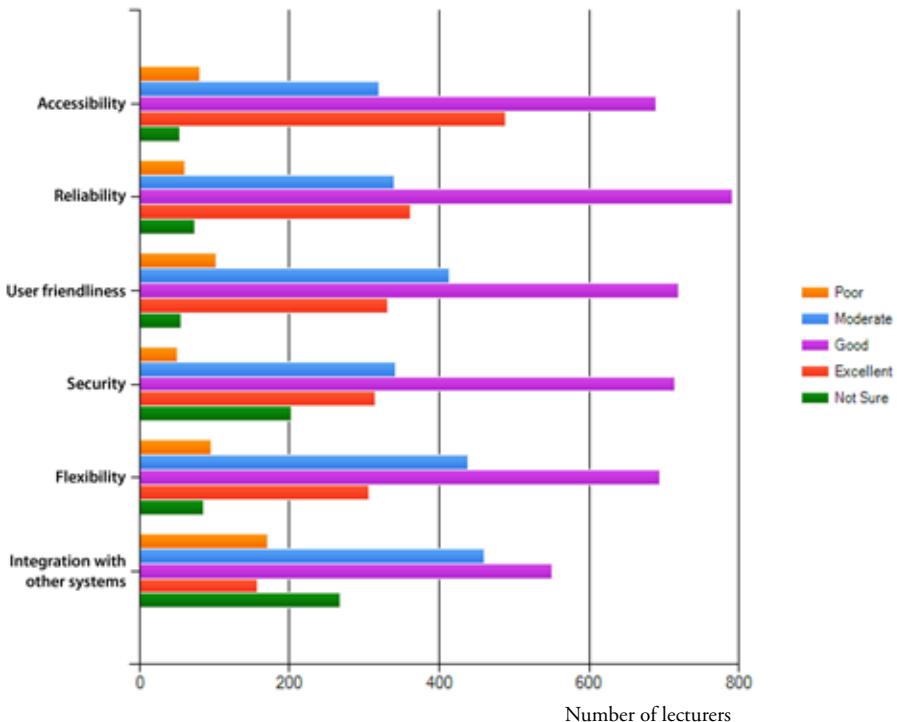


Figure 4.9: Opinion of lecturers on the effectiveness of their LMS

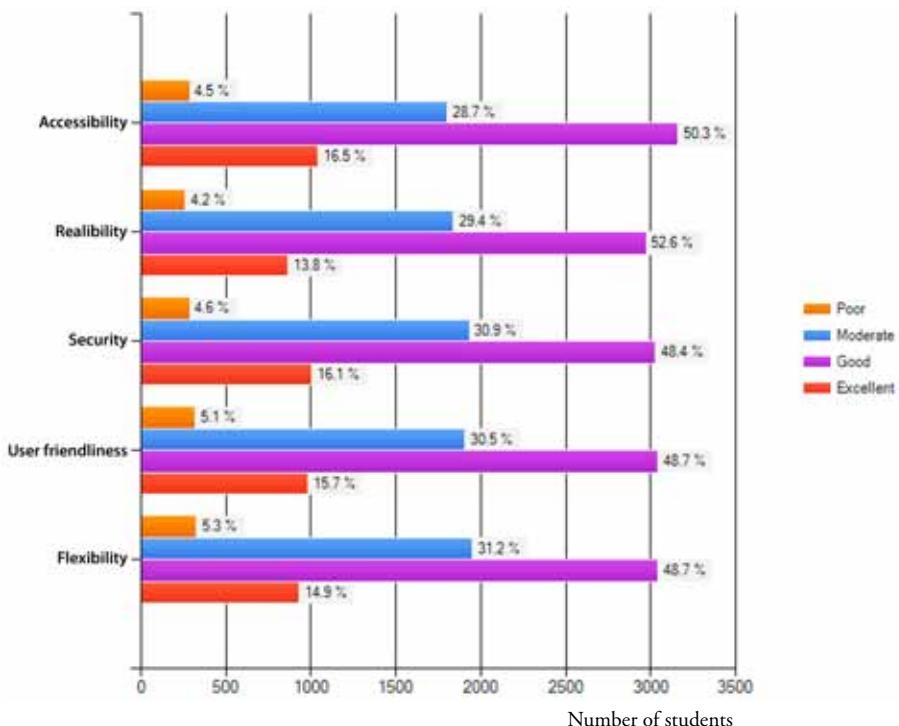


Figure 4.10: Opinion of students on the effectiveness of their LMS

There are a few LMS trends obtained from the 1,635 lecturers and 6,301 students who participated in this study. Figure 4.11 shows that the majority of the lecturers (77.0%) are using the LMS provided by their respective institutions. Figure 4.12 shows that only 63.3% of the students involved in this study were trained on the use of LMS. Figure 4.13 shows the breakdown of other tools by lecturers who do not use LMS provided by their institutions. The main applications used are content *sharing tools* such as *Slideshare* (36.9%) followed by *social networking* tools such as *Facebook* (26.7%) and *photo/video sharing* like *Youtube* (24.3%). This is quite different from the applications used by lecturers to complement the LMS provided by their institutions, whereby social networking is the favourite (45.7%), followed by communication applications such as *Yahoo* (35.4%) and content sharing (32.8%) (Figure 4.14). According to the students, as shown in Figure 4.15, the most widely used applications used by lecturers as alternatives to the LMS are *content sharing* (45.3%), *photo/video sharing* (37%), and *social networking* (36.8 %).

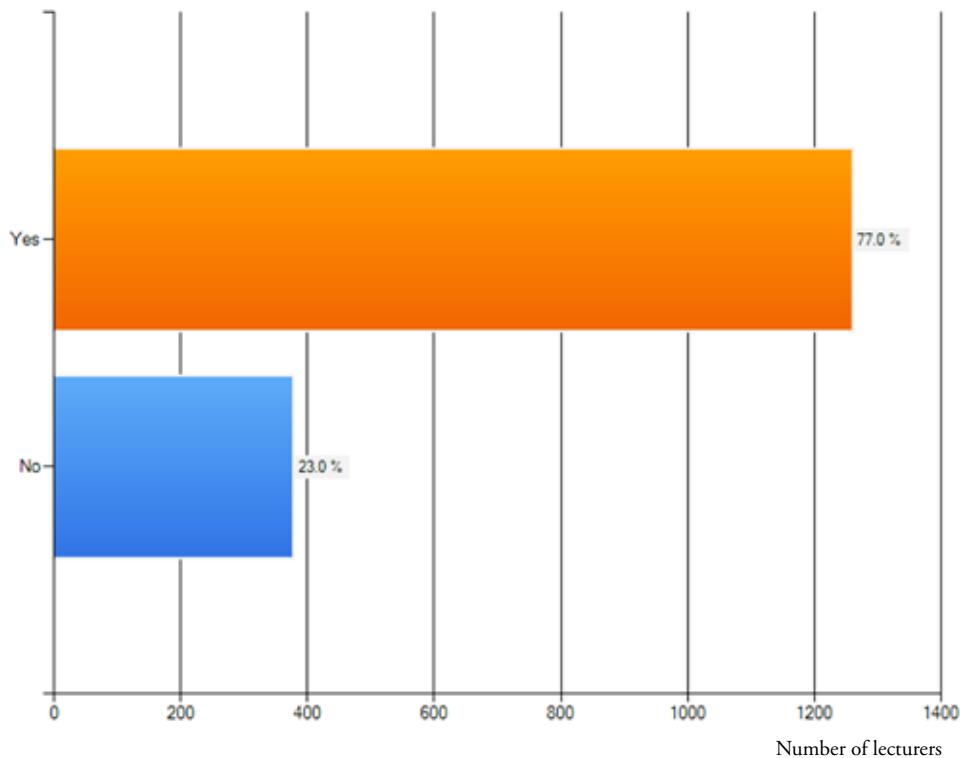


Figure 4.11: Usage of LMS among lecturers

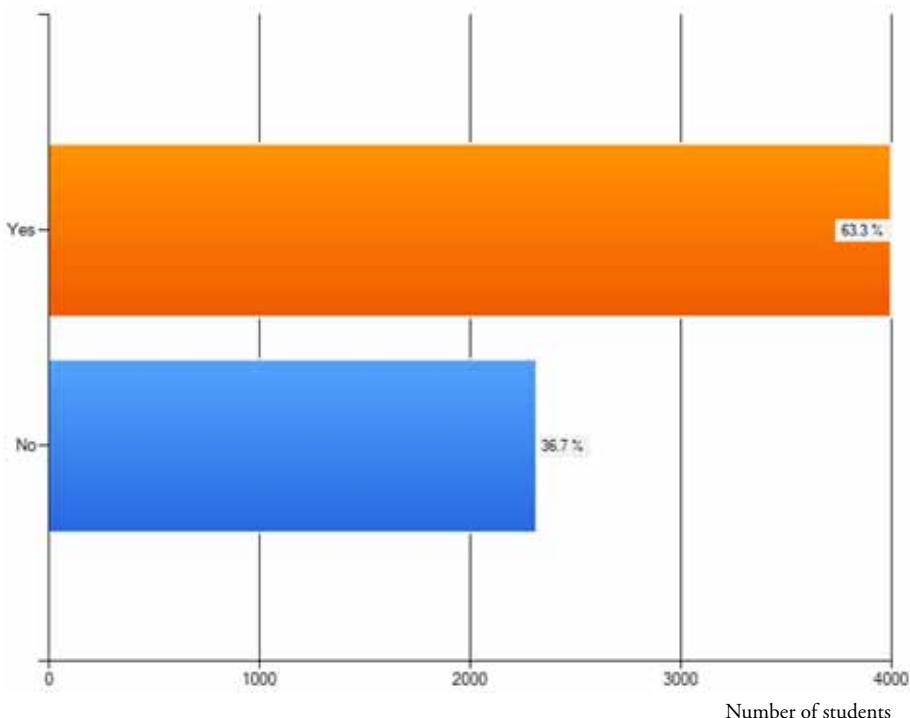


Figure 4.12: Number/Percentage of students who are given relevant LMS training

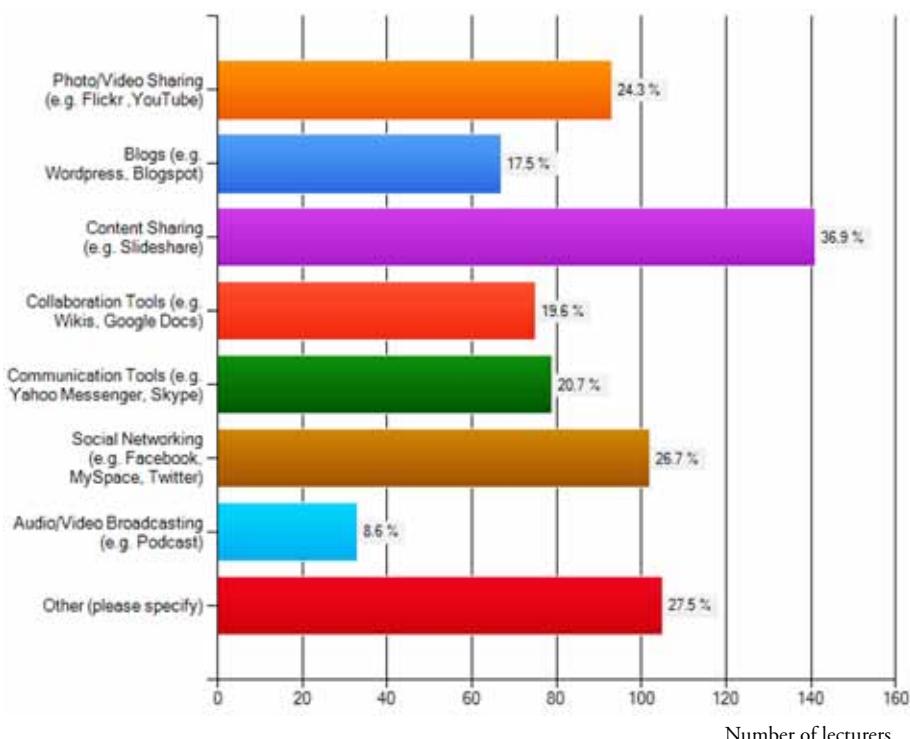


Figure 4.13: Other applications used by lecturers who do not use the LMS provided by HEIs

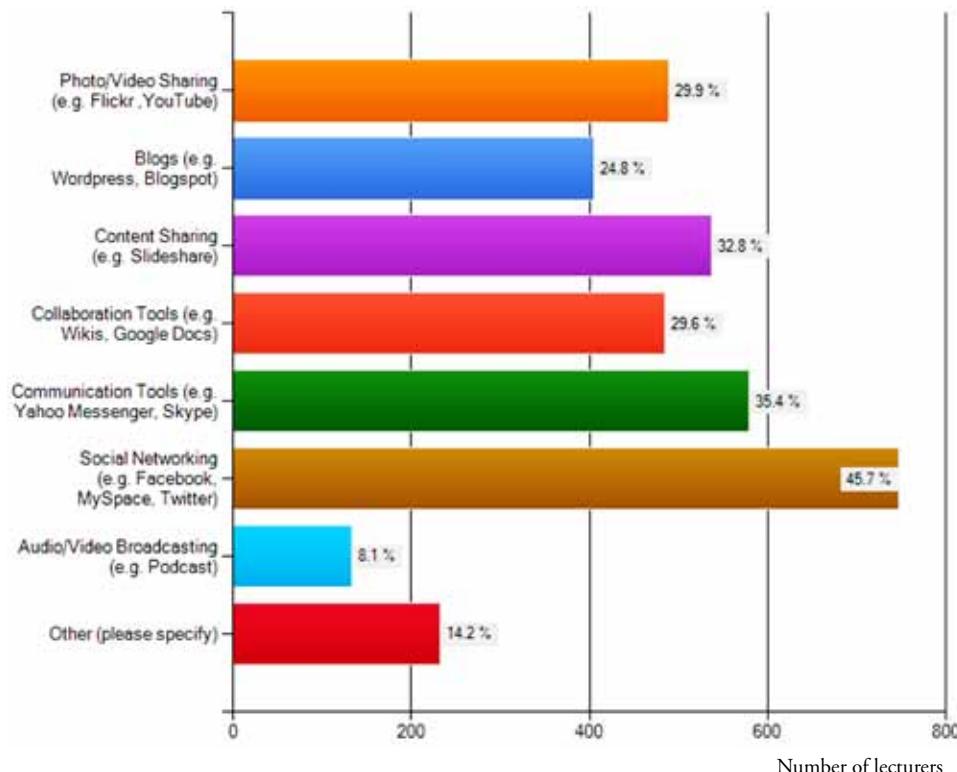


Figure 4.14: Alternative applications most used by lecturers to complement the LMS provided by HEIs

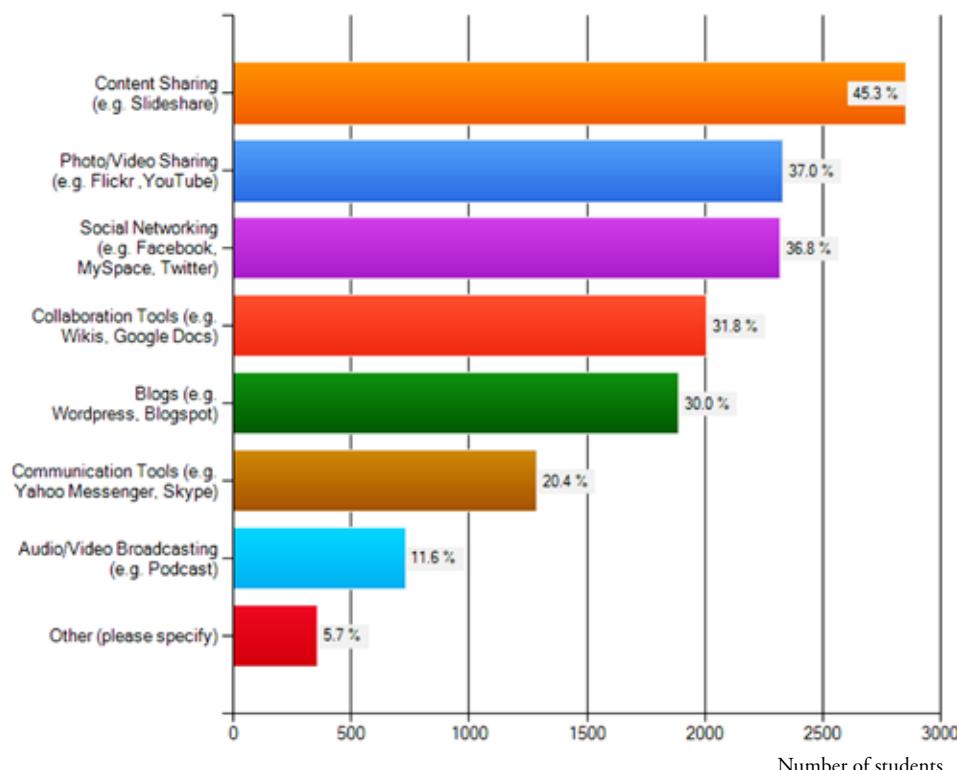


Figure 4.15: Alternative applications most used by lecturers (as reported by students)

In terms of the trends in LMS usage, the main features of the LMS most used by lecturers were *course delivery* (65.3%), *content development* (58.8%), and *communications* (45.3%) as shown in Figure 4.16. In terms of frequency of accessing the LMS, Figure 4.17 shows that most lecturers access their LMS once a week (30.8%), followed by those who access it once daily (21.5%), and those who access it several times a day (18.5%). The number of lecturers who do not access the LMS at all was very small, about 133 people or 8.1%.

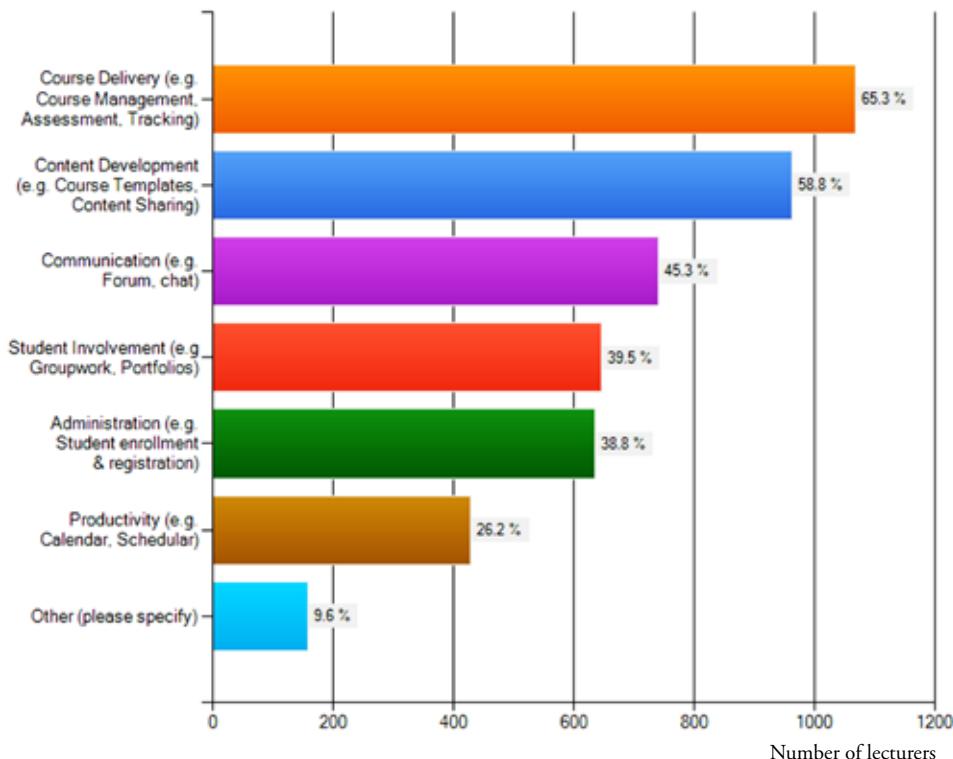


Figure 4.16: The main components of the LMS used by lecturers

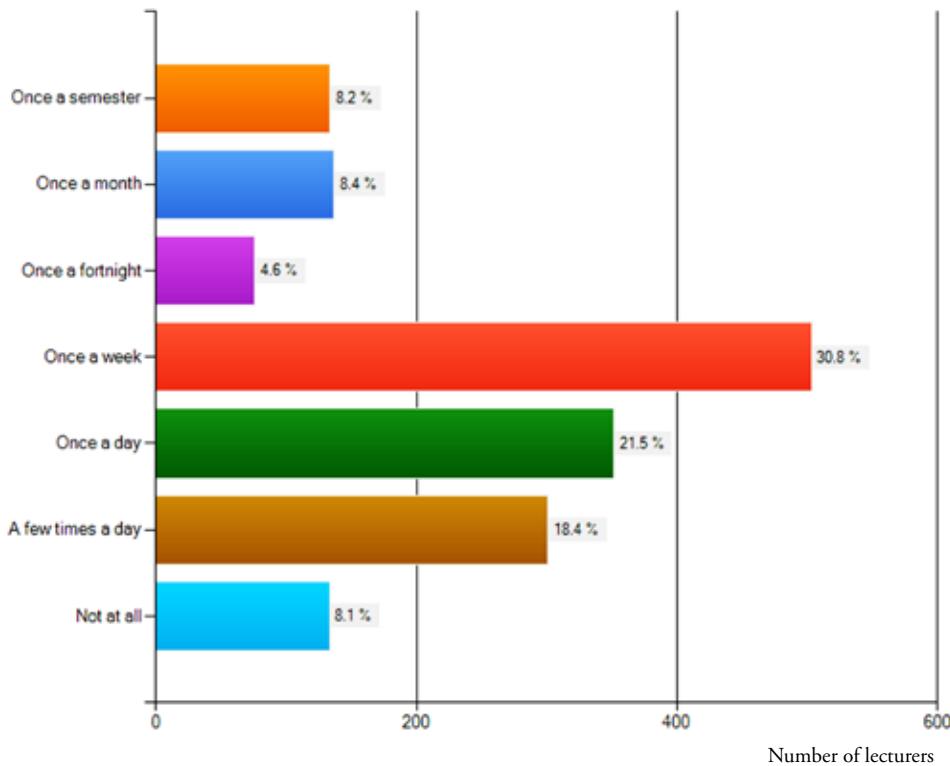


Figure 4.17: Frequency of accessing the LMS by lecturers

Figure 4.18 shows that the LMS features most frequently used by lecturers during a semester was *email* (34.6%), while frequently used features included *course management* (38.3%), *content sharing* (33.8%), *course templates* (33.4%), and *assessment* (32.5%). However, the student data (see Figure 4.19) shows that the LMS features often used by students were *searching within course* (40.1%), *assessment* (39.7%), and *course management* (39.1%).

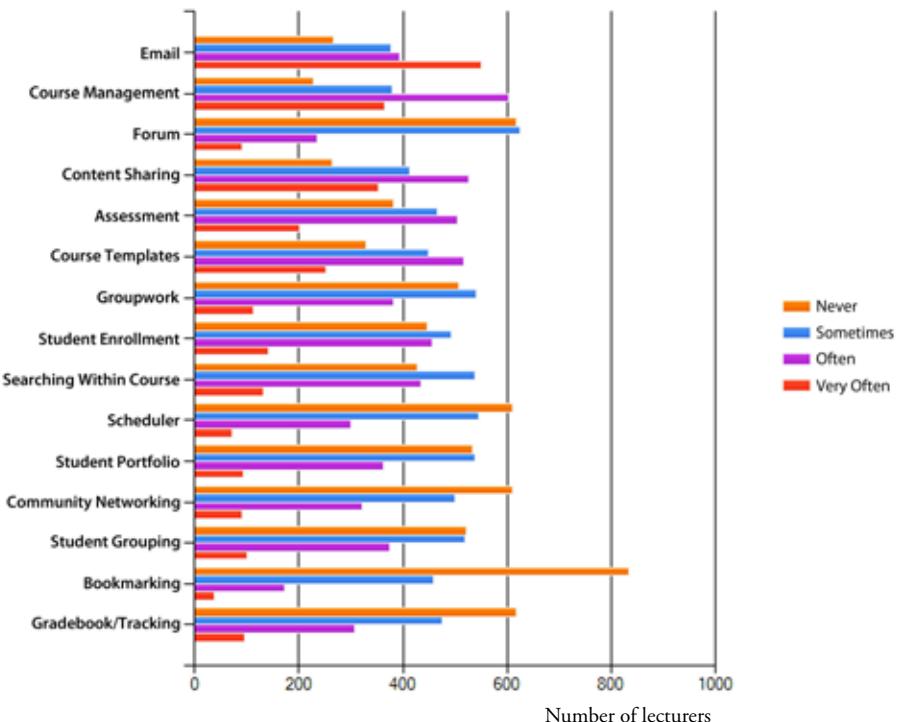


Figure 4.18: Components of the LMS most frequently accessed by lecturers

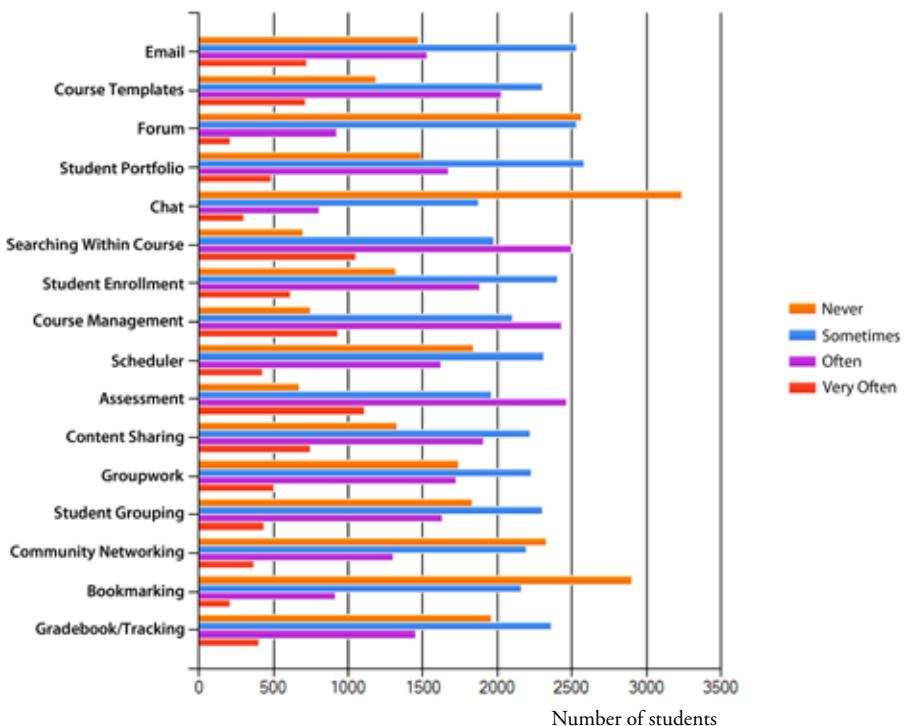


Figure 4.19: Components of the LMS most frequently accessed by students

Figure 4.20 shows that the LMS features most beneficial to teaching were *email* (61.3%), *course management* (56.7%), *content sharing* (52.2%), and *assessment* (45%). The features most beneficial to student learning were *assessment* (55%), *email* (54.2%), *course management* (52.8%), and *content sharing* (36.6%) as ranked by the students involved in this study (see Figure 4.21).

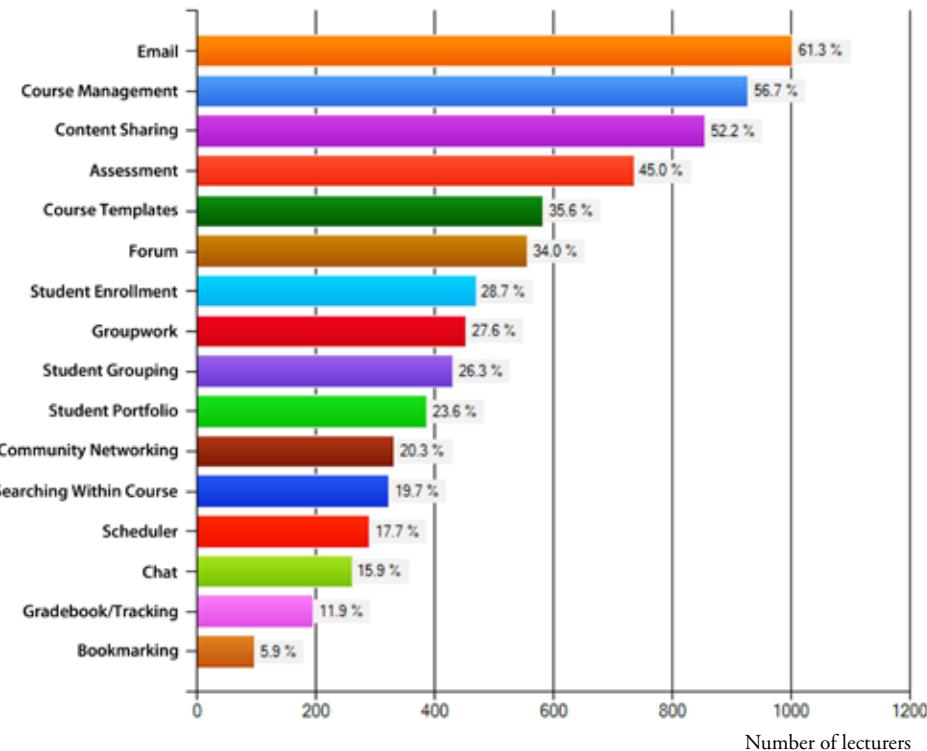


Figure 4.20: Components of the LMS most beneficial to lecturers

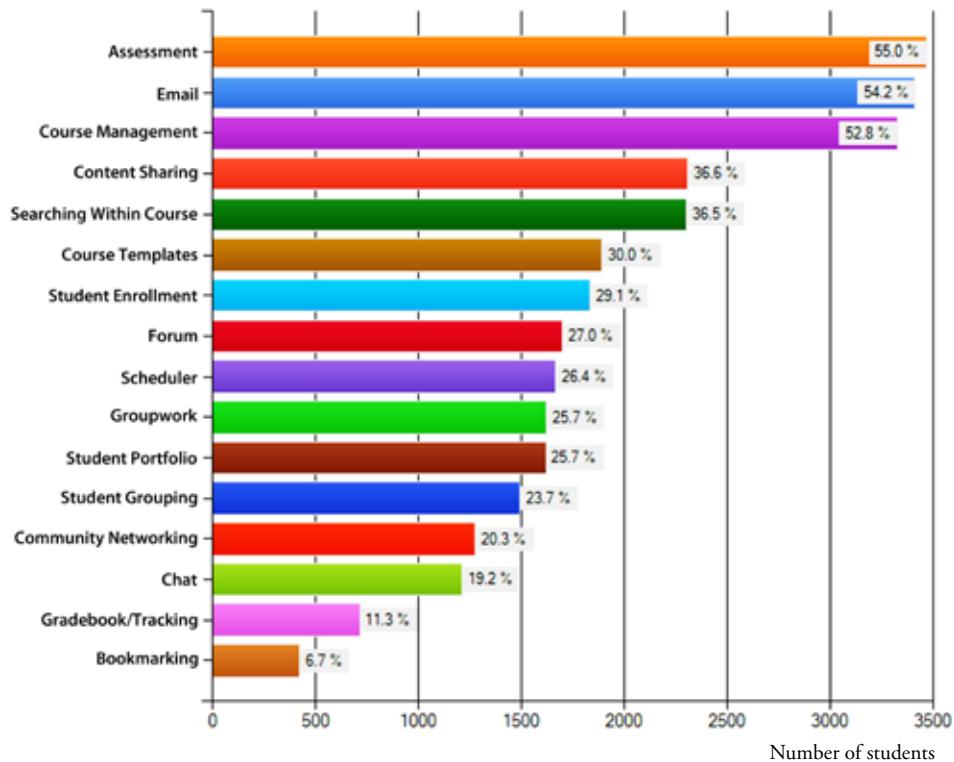


Figure 4.21: Components of the LMS most beneficial to student learning

When asked about the usefulness of the LMS components, lecturers and students involved in this study equally believed that all components were useful except for *chat* and *bookmarking* (Figures 4.22 and 4.23). Finally, when asked about the online activities they were most interested in, students chose *self-directed learning* (66.3%), *collaborative assignment* (57.9%), and *interactive quizzes* (57.8%) more than *forum/chat* (49.4%), as listed in Figure 4.24.

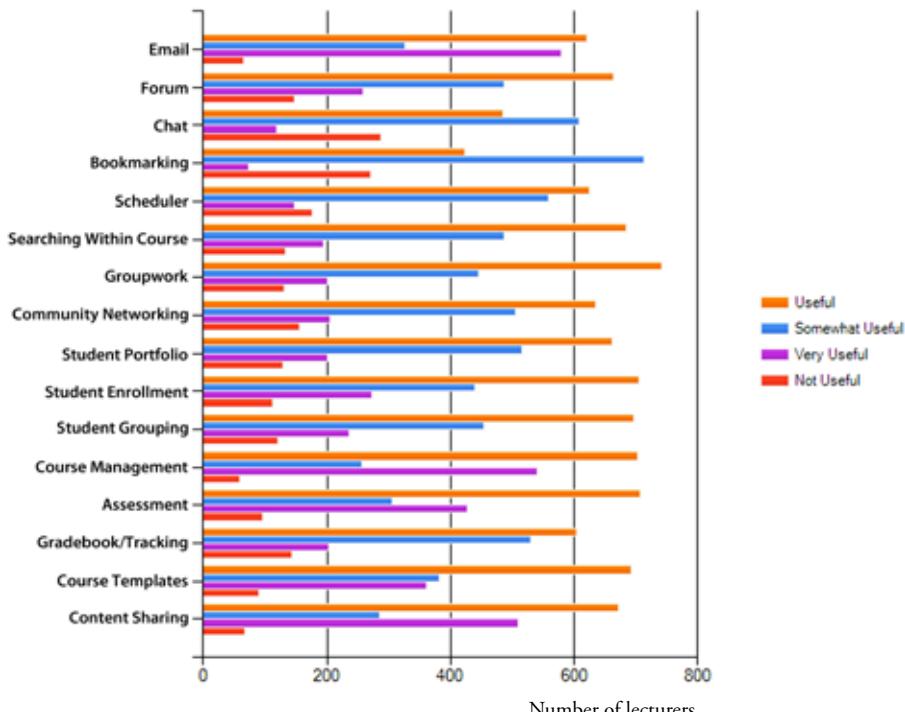


Figure 4.22: Lecturers' opinion on the level of usefulness of LMS components

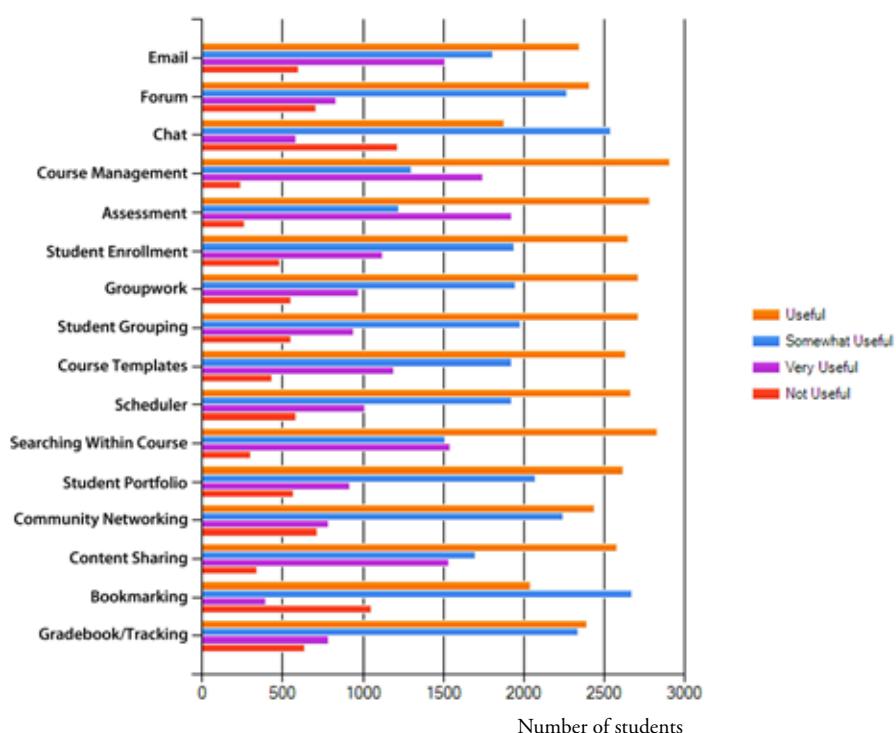


Figure 4.23: Students' opinion on the level of usefulness of LMS components

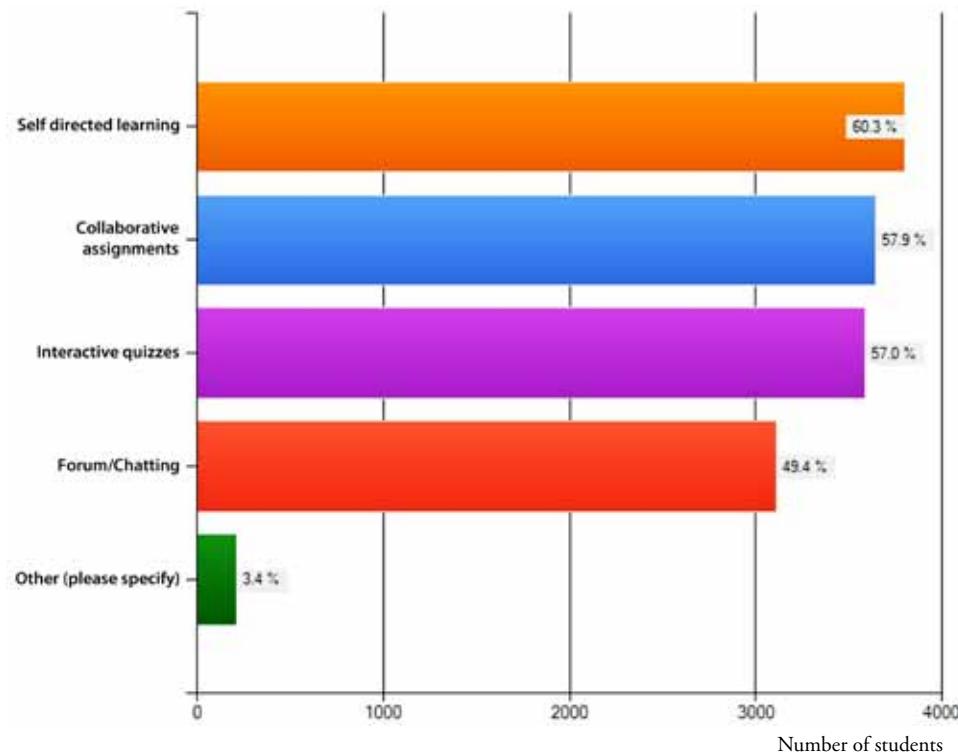


Figure 4.24: Online activities students are most interested in

Problems & Challenges Related to Learning Management Systems

The main challenge faced by HEIs (88.9%) in relation to the utilisation of the LMS by academic staff was the current teaching practices, as shown in Figure 4.25. Nearly two thirds of HEIs faced the problem of staff not being well versed in IT (69.2%), academic staff too busy with research and publication (65.4%), academic staff burdened with heavy teaching load (65.4%), and staff sceptical of e-Learning (64.5%). Only three HEIs (11.5%) felt that the major challenge in the use of LMS was the tendency towards open-source platforms. In addition, only two HEIs felt that the major challenges in the use of LMS were that the existing LMS was not user-friendly and the lack of training related to the LMS.

The main reasons given by the sample of lecturers who did not use the LMS provided by their respective institutions include lack of training (37.4%), lack of time (36.15%), prefer traditional teaching methods (30.1%), lack of technical support (29.6%), lack of facilities (28.3%), and additional burden to existing teaching load (27%), as can be seen in Figure 4.26.

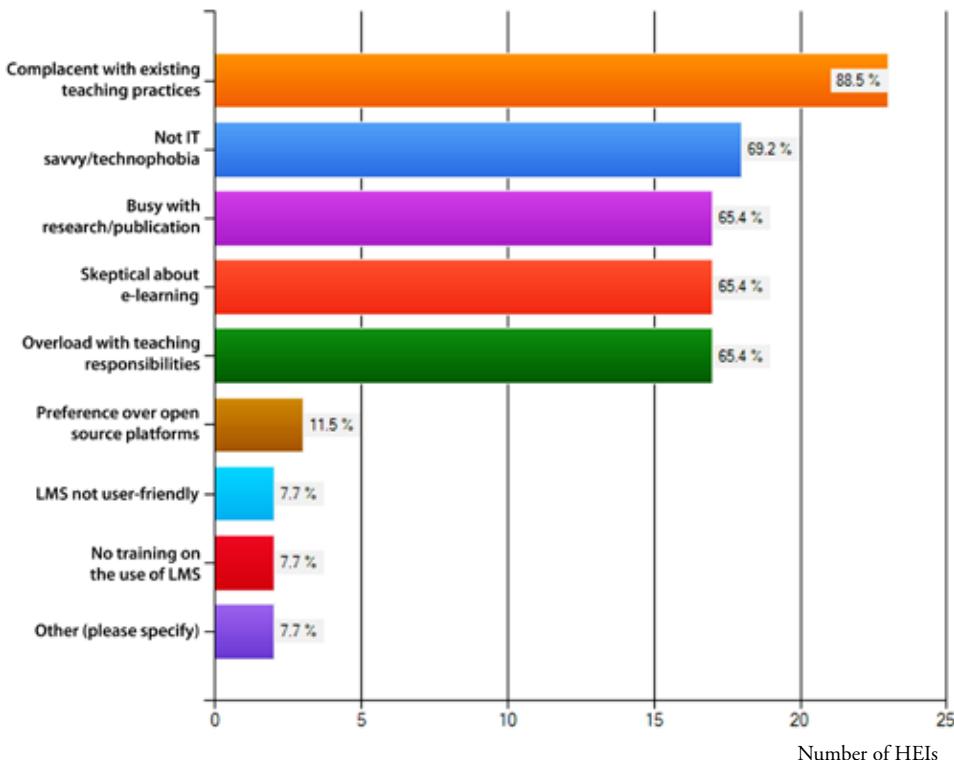


Figure 4.25: The main challenges in the use of LMS by academic staff in Malaysian HEIs

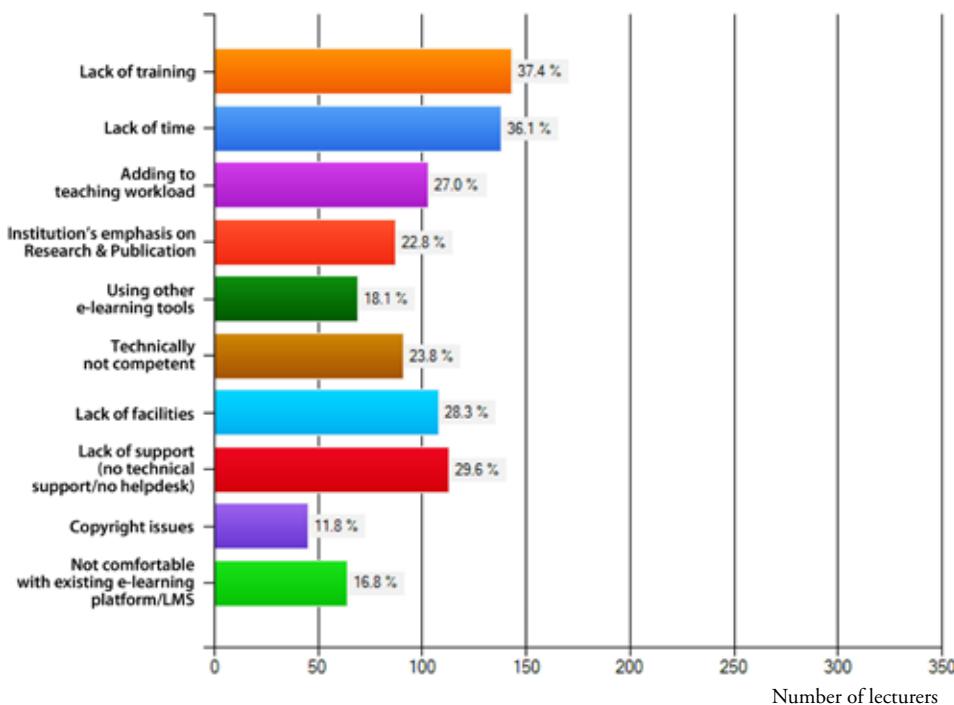


Figure 4.26: Reasons why lecturers are not using the LMS

Implications of Findings & Proposed Improvements

Implications for HEIs

The data show that all HEIs involved in the study were using LMS, which indicates a high awareness on the needs of e-Learning. A report on LMS facilities indicate that communication facilities and course content and delivery facilities are the most common facilities in LMS. This is expected because the two type of facilities are the mainstay of using LMS in teaching. However, 65.4% of HEIs reported that from student learning perspectives, their LMS did not have the facilities to encourage student involvement, such as group work and portfolio construction facilities.

The levels of integration and *interoperability* between the LMS used in HEIs with other existing information systems were low. It is important for HEIs to think of the integration and interoperability among their existing systems, including the LMS, as teaching and learning is one of the many *core businesses* for any higher education institution.

LMS use among lecturers (77%) and students (63.4%) was relatively high, but it's still not high enough and can be improved. There was little difference between the types of online facilities used by lecturers as alternatives to the LMS and students' report of the alternative facilities used by their lecturers. The main categories that received high responses include *content sharing*, *photo/video sharing*, and *social networking*. The implications here are clear to the HEIs that there should be efforts to integrate these facilities into existing LMS.

The trend in lecturers' use of the LMS indicates that lecturers are still focusing on course management and content delivery. The LMS components reported as frequently used by lecturers are *email*, *course management*, *content sharing*, and *assessment*. Students reported *searching within a course*, *assessment*, and *course management* as the components that they frequently used. In addition, students also chose *self-directed learning*, *collaborative assignments*, and *interactive quizzes* as the activities that they are most interested in. From these two perspectives, it can be concluded that e-Learning in Malaysian HEIs, as supported by the existing LMS, is still focusing on the mechanical aspects of learning, such as content delivery and assessment. The challenge that must be addressed for the future is to make existing systems drive and support more important aspects of learning such as creative learning and knowledge synthesis.

Training provided by HEIs is quite good with 77.0% lecturers and 63.3% students having reported that they have attended training on the LMS used by their institutions. However, this figure can still be improved because 37.4% of lecturers who did not use the LMS in their institutions reported lack of training as one of the key factors for them not using the system.

Issues concerned with the challenges in e-Learning governance in Malaysian HEIs are in general in line with the findings from other countries. These issues include lack of time for e-Learning because of the heavy burden of teaching load, research, and publications. In addition, there are also issues of lack of ICT skills and scepticism of e-Learning that can be tackled directly by the academic development centres at the respective HEIs through training programmes.

Implications for MOHE

LMS use is widespread among Malaysian HEIs, however, there are inconsistencies and lack of coordination in the management of technical resources and expertise. Most HEIs are either using *open-source* LMS such as Moodle or developing their own and modifying their existing LMS.

One of the roles that MOHE can play is to coordinate the development and management of resources with respect to the LMS for use in Malaysian HEIs. This will enable a more effective concentration of resources for use by HEIs in Malaysia. As a bold move, MOHE should also consider the development of a specific LMS for use in Malaysian HEIs which is supported and enhanced by MOHE itself.

Implications for AKEPT

The findings of this study indicated that there is a perception that training on the use of LMS is inadequate. AKEPT can play a role in this regard by formulating standards and policies on the necessary e-Learning training to be conducted by HEIs. Apart from standards and policies, AKEPT must also be prepared to provide support in the form of expertise and resources to those HEIs that need it.

Overall Implications

In one aspect, the use of LMS is satisfactory because of the 100% *penetration* among the HEIs that responded to the survey. However, there is a lack of coordination in terms of the use and concentration of resources in view of similar LMS platforms used by HEIs. What is needed at the national level is a body that can monitor, advise, and provide assistance, particularly in coordinating resources, platforms, and improvements to the existing LMS platforms in HEIs.

Conclusion

This chapter has described the status, trends, effectiveness, and challenges of implementing Learning Management Systems (LMS) in Malaysian HEIs from the perspectives of 26 e-Learning administrators, 1,635 lecturers, and 6,301 students involved as the sample in this study.

Chapter 5

e-Learning Training in Malaysian Institutions of Higher Learning

Supyan Hussin
Mohamed Amin Embi
Hanafi Atan

Introduction

Current developments that occur either in terms of theory and practice, teaching methodology and learning strategies, tools, and technologies that can assist in the teaching and learning process, require HEIs to be sensitive and responsive to change and innovation. In light of this, exposure to new knowledge and skills need to be updated and provided to staff to ensure that the HEIs are not left behind in the wave of world class education. Thus, the training programmes for administrative staff, academic staff, and support staff must be well planned. One training aspect required in the 21st century is e-Learning training.

To understand the status of e-Learning training in Malaysian HEIs, from this study, data were collected from 26 e-Learning administrators and 1,635 lecturers in Malaysian HEIs. Next, this chapter will discuss the findings of this study. The discussions will be divided into research methodology, findings, and implications of the study.

Methodology

In the e-Learning research conducted in Malaysian HEIs, 26 e-Learning administrators responded to the Malaysian HEIs e-Learning Questionnaire (IT Manager) and 1,635 lecturers answered the Malaysian HEIs e-Learning Questionnaire (Instructor) online. Analysis for the e-Learning training aspect includes 15 items from the Malaysian HEIs e-Learning Questionnaire (IT Manager) and 6 items from the Malaysian HEIs e-Learning Questionnaire (Instructor). The results are described according to three areas, namely, (i) status of e-Learning training, (ii) trends and effectiveness of

such training, and (iii) problems and challenges in the implementation of e-Learning training in Malaysian HEIs.

Findings

Status of e-Learning Training

Data in Figure 5.1 show that all HEIs involved in this study conduct e-Learning training for their academic staff. However, only 69.2% or 18 HEIs conduct training for support staff (see Figure 5.2), and 50% of the HEIs conduct e-Learning training for their students (see Figure 5.3). From the perspective of the contents of training conducted, as shown in Figure 5.4, content is usually focused on making staff skilled in using the applications available in the LMS (96.2%) and introduction to e-Learning (84.6%). Some of the HEIs offer training associated with e-Learning pedagogy (57.7%) and e-Content development (53.8%). In addition, only one-third of HEIs (34.6%) included Web 2.0 applications in their e-Learning training for their teaching staff.

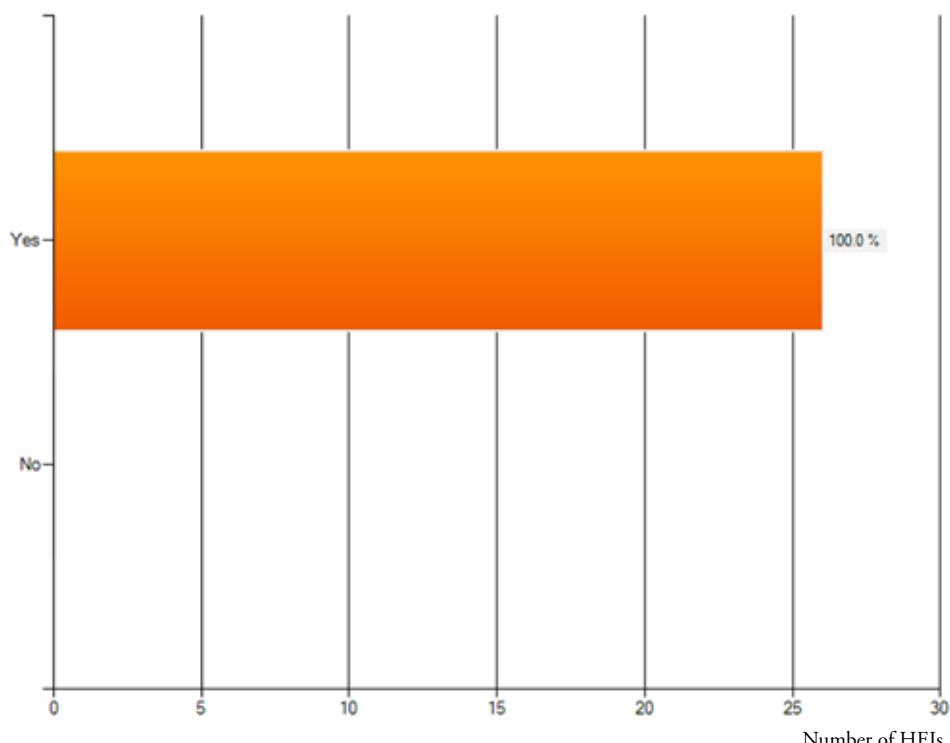


Figure 5.1: Number/Percentage of HEIs that provide e-Learning training for academic staff

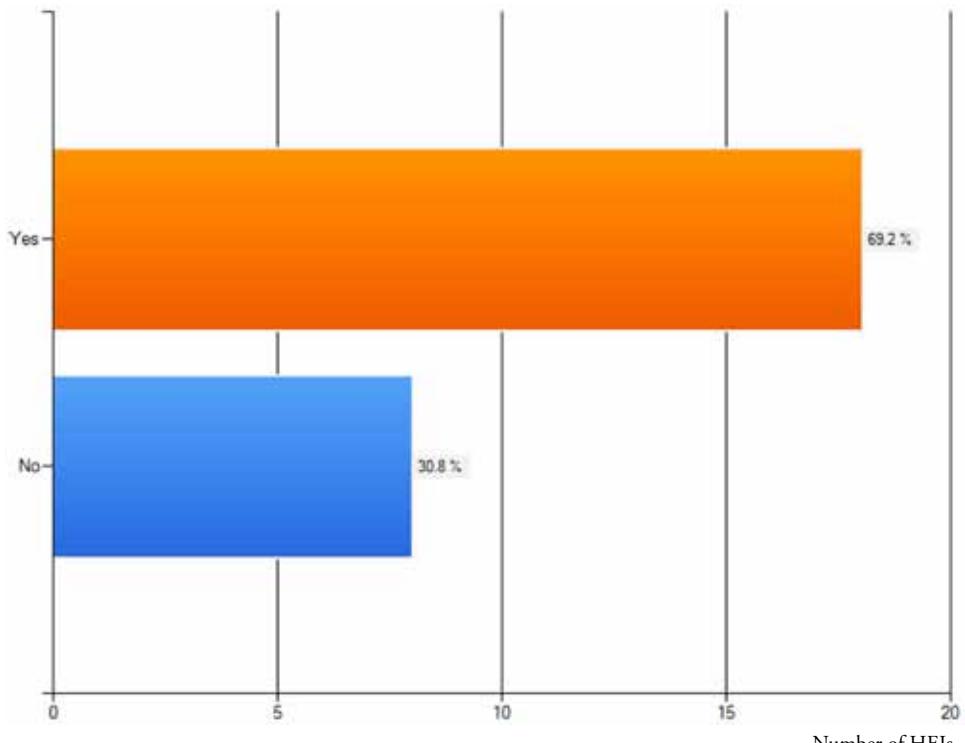


Figure 5.2: Number/Percentage of HEIs that provide e-Learning training for support staff

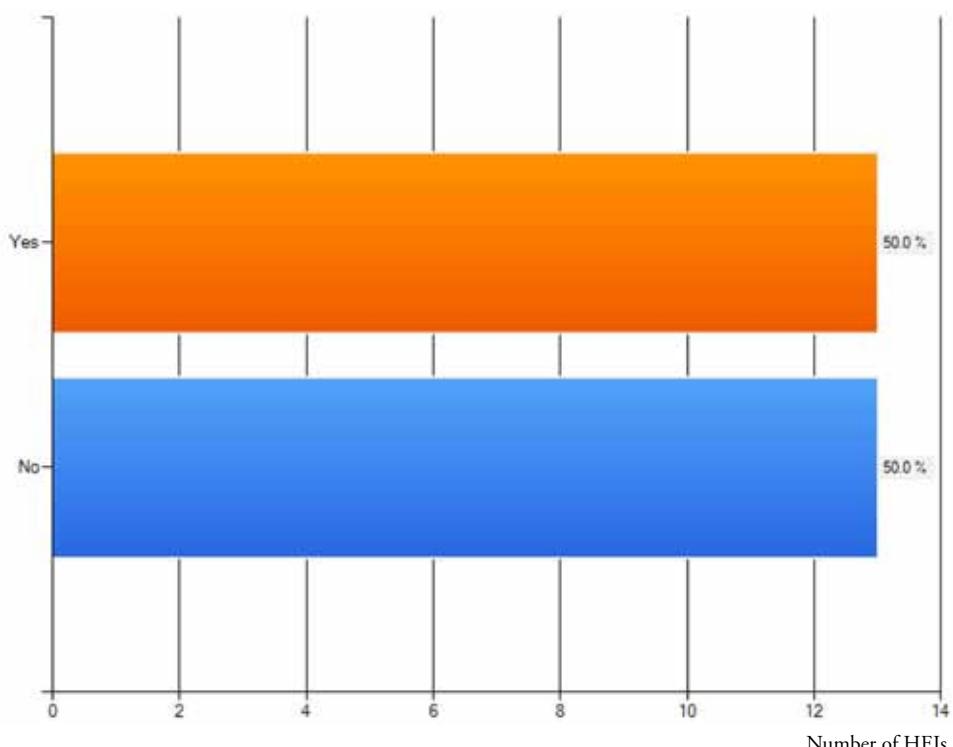


Figure 5.3: Number/Percentage of HEIs that provide e-Learning training for students

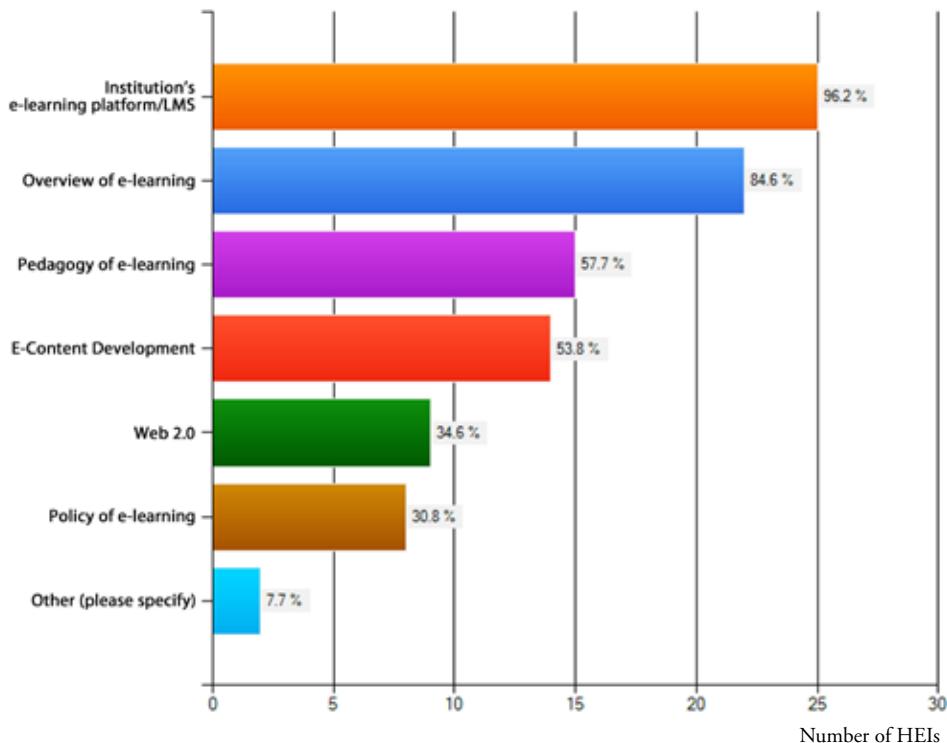


Figure 5.4: Topics included in e-Learning training conducted by Malaysian HEIs

With regard to e-Learning training, the study found that the majority of the HEIs (84.6%) provide e-Learning training as part of their academic staff training and development programmes in their respective institutions (see Figure 5.5). In addition, 11 HEIs conduct e-Learning training 1 to 3 times a year (42.3%), 9 HEIs conduct training more than 6 times a year (34.9%), while 6 HEIs conduct training 4 to 6 times a year (23.1%) (see Figure 5.6). Majority of training (73.1%) was conducted in one day, while only a small proportion (26.9%) of training was conducted in more than one day (Figure 5.7). The main mode of training (see Figure 5.8) is face-to-face (92.3%) followed by the *blended* mode (42.3%) and *on-demand* (34.6%). The percentage of *fully online* (11.5%) and *CD-based* (7.7%) training is very small. Only 6 HEIs (23.1%) make e-Learning training mandatory for all academic staff; while 7 HEIs (26.7%) make it mandatory for new staff only. Half of the HEIs surveyed carried out their e-Learning training on a voluntary basis (see Figure 5.9).

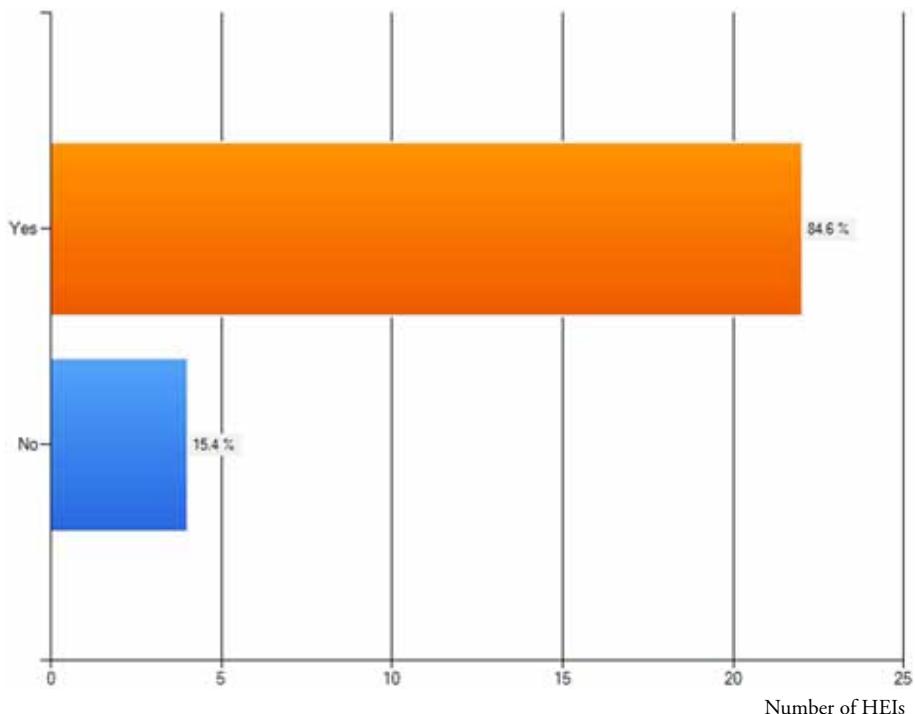


Figure 5.5: Number/Percentage of HEIs that provide e-Learning training as part of their academic staff training and development programmes

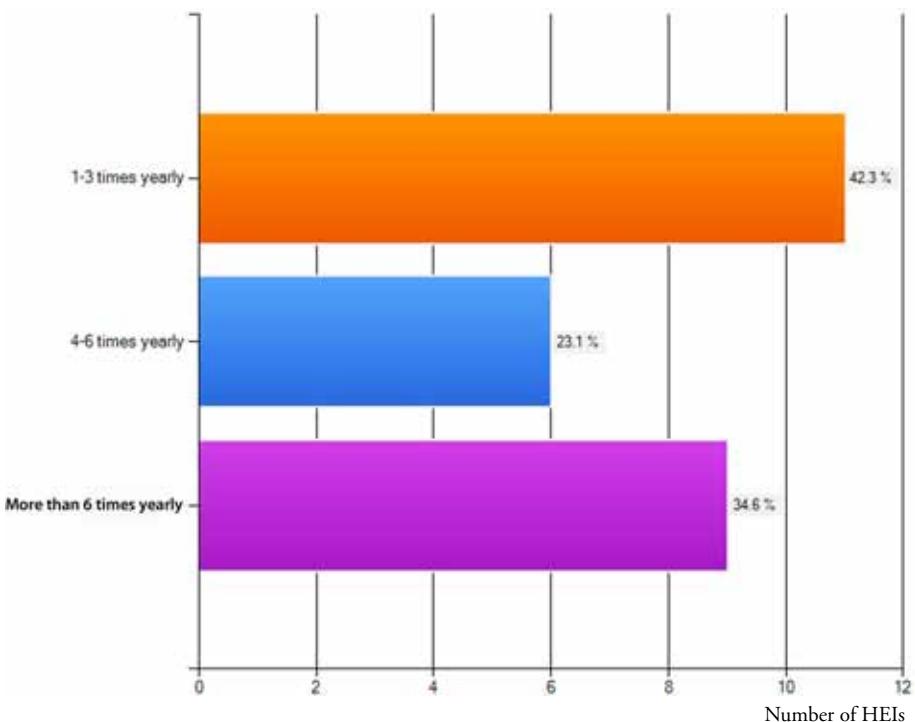


Figure 5.6: Frequency of e-Learning training carried out in a year

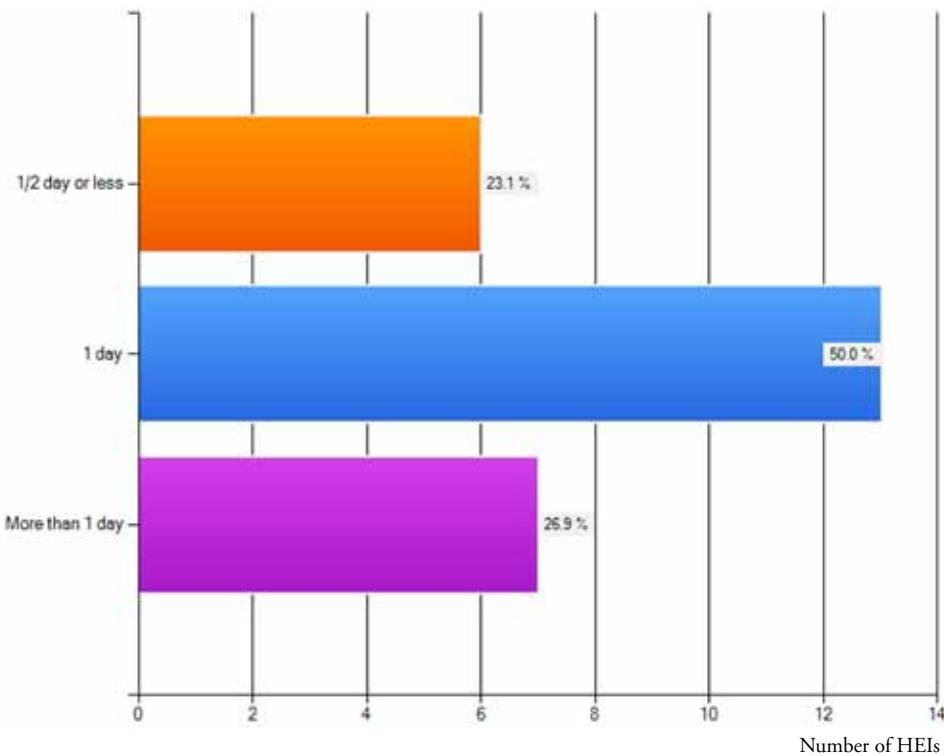


Figure 5.7: Duration of e-Learning training conducted by Malaysian HEIs

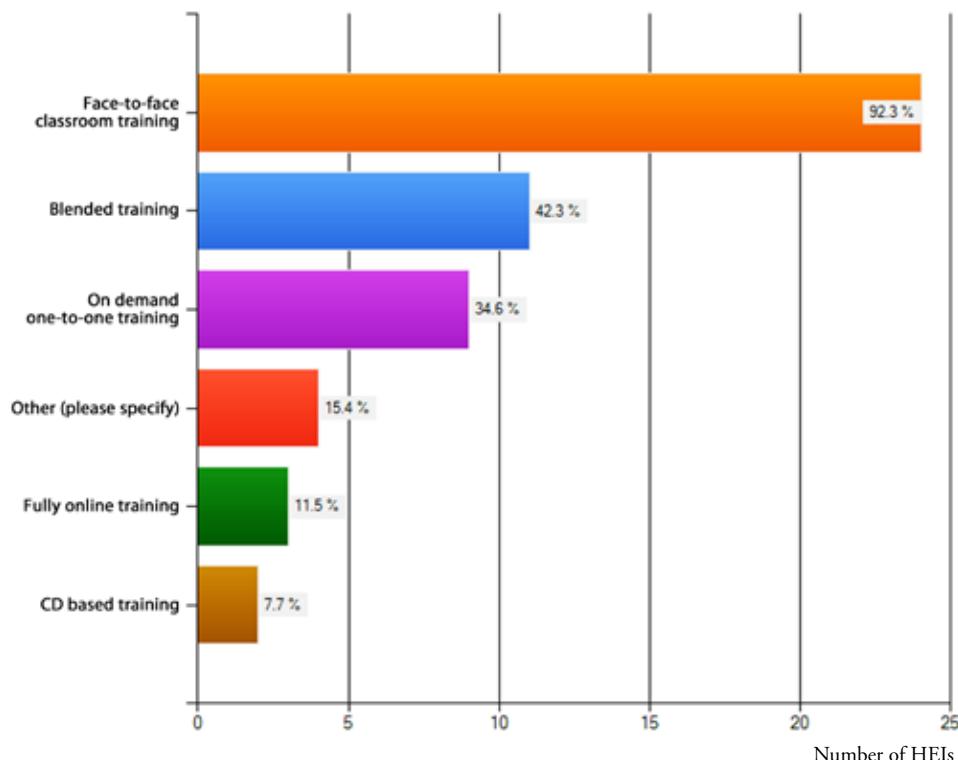


Figure 5.8: The main modes of e-Learning training in Malaysian HEIs

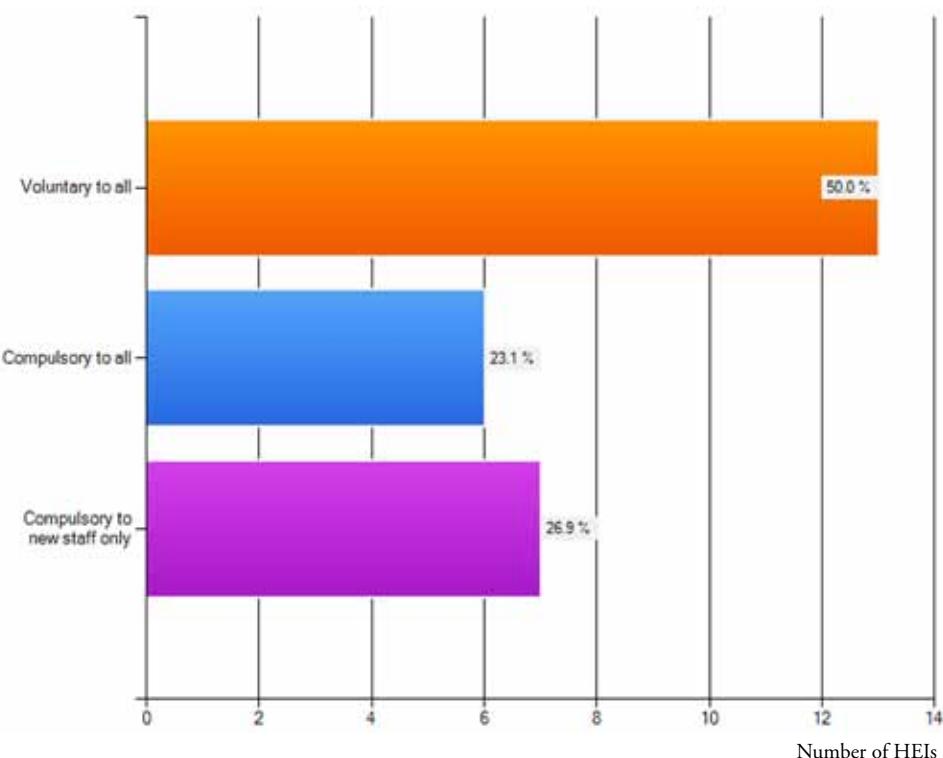


Figure 5.9: Compulsory e-Learning training in Malaysian HEIs

The findings concerning trainers involved in e-Learning trainings in HEIs are shown in Figure 5.10. The study showed that e-Learning training is usually conducted by internal trainers (100%); however, there are several institutions that invited outside consultants (34.6%) to conduct some of the e-Learning training programmes. None of the HEIs used the services of foreign consultants for their e-Learning training programmes. Typically, the internal trainers have attended TOT (Training of Trainers) programmes related to e-Learning (73.1%), attended workshops/seminars on e-Learning at the national and international levels (42.3%) and/or have Ph.D. qualifications. There are also trainers (23.1%) who obtained relevant e-Learning skills through self-study (see Figure 5.11).

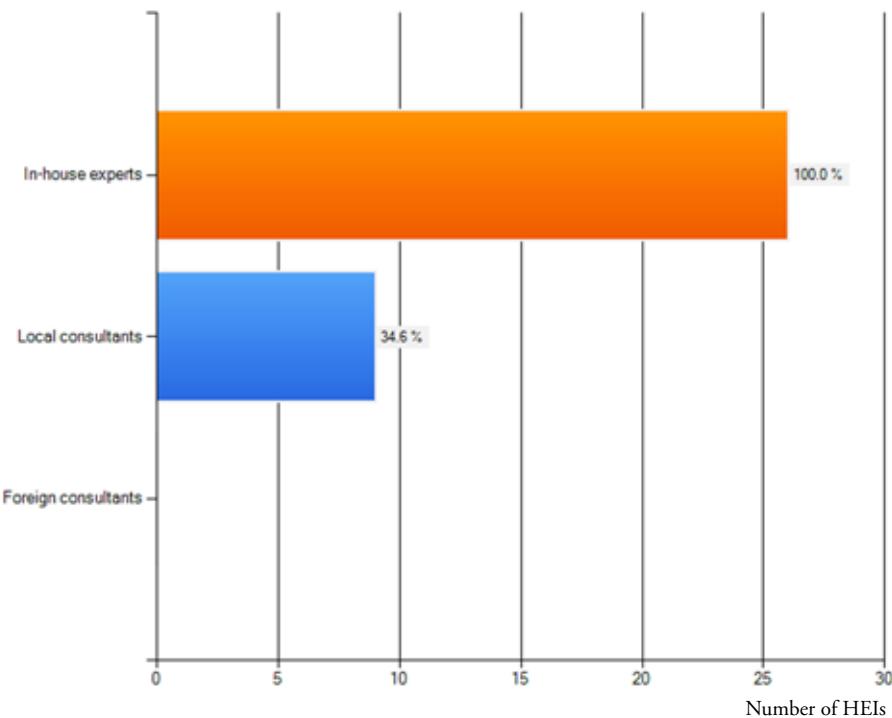


Figure 5.10: The main source of e-Learning trainers at Malaysian HEIs

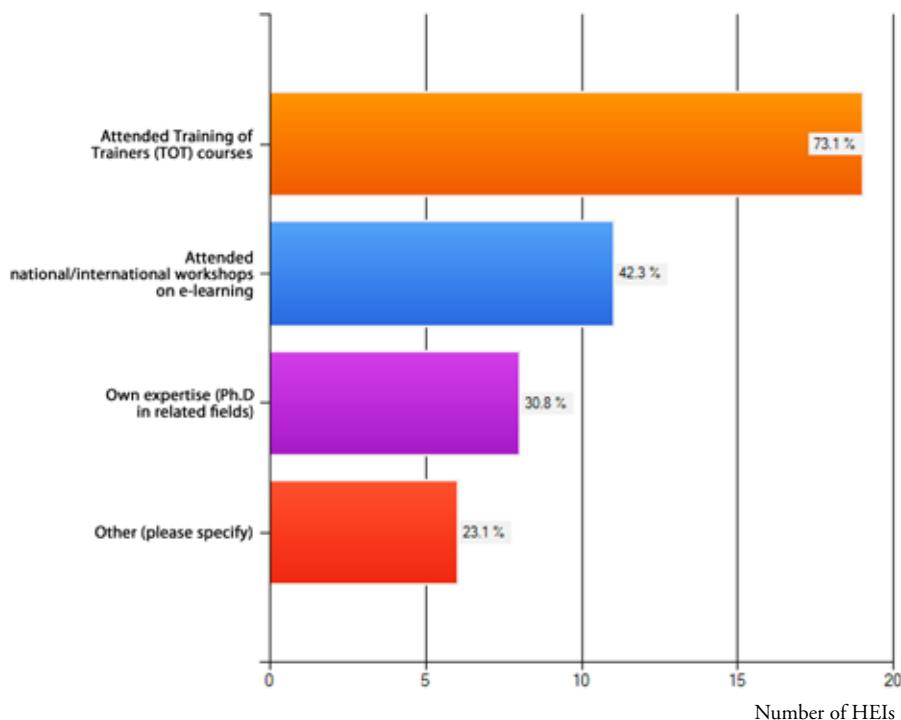


Figure 5.11: Source of e-Learning training experts in Malaysian HEIs

Trends & Effectiveness of e-Learning Training

In terms of e-Learning training given to academic staff, the study showed that more than half of the HEIs involved in this study have conducted e-Learning training for their respective academic staff (see Figure 5.12). However, 5 HEIs indicated that only 11% – 35% of their academic staff have been trained, 5 HEIs indicated less than 10%, while the majority of the HEIs indicated that 36%–50% of their academic staff have followed a training programme related to e-Learning. Only 57.7% or 15 HEIs offer follow-up programmes after the e-Learning training sessions (see Figure 5.13), while 30.8% or 8 HEIs make attendance to e-Learning training part of the annual appraisal for academic staff (see Figure 5.14).

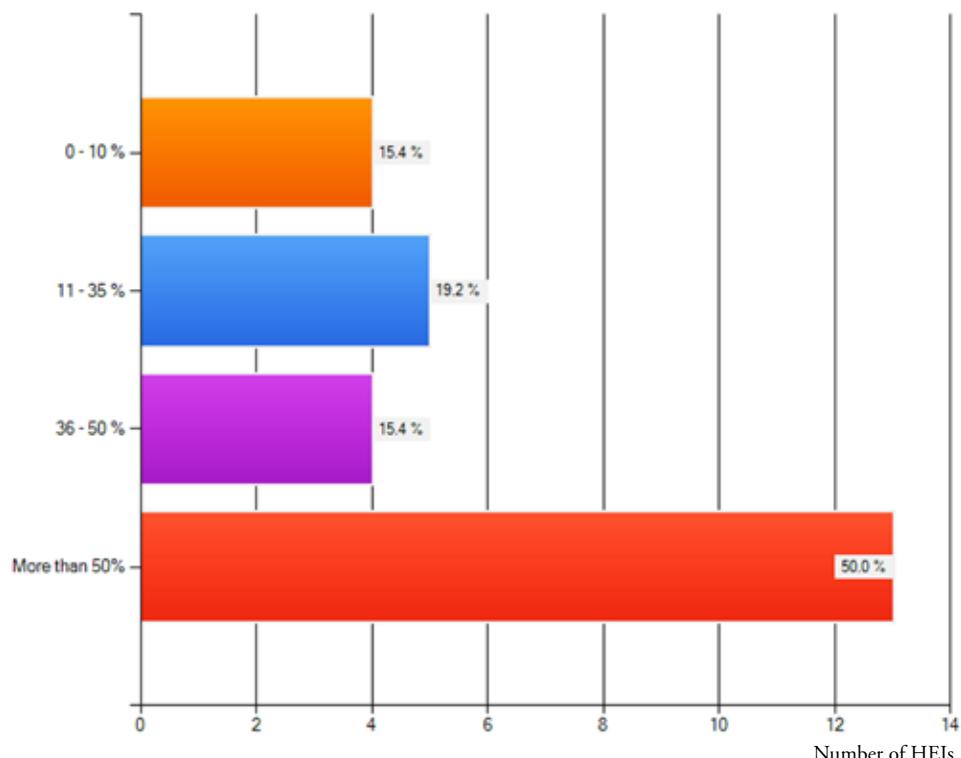


Figure 5.12: Academic staff who are trained by Malaysian HEIs

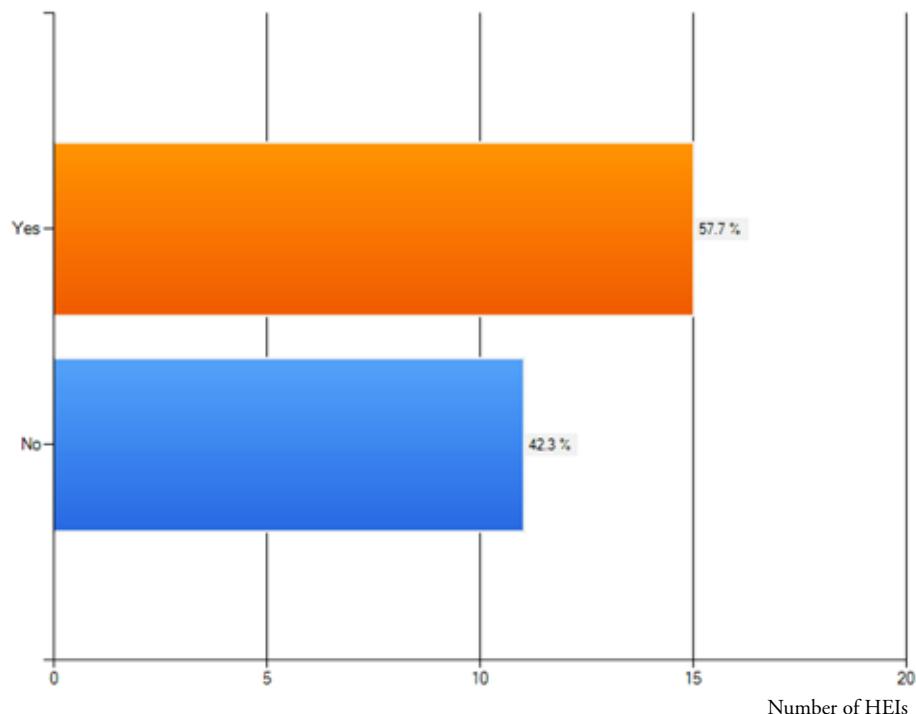


Figure 5.13: Number/Percentage of HEIs that offer follow-up programmes after conducting e-Learning training at their respective institutions

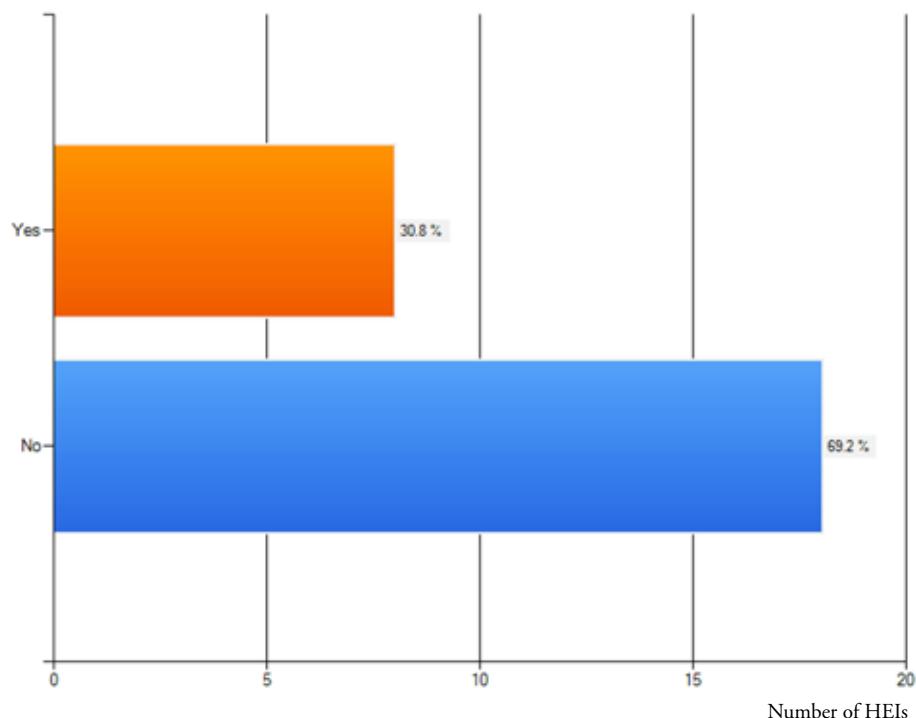


Figure 5.14: Number/Percentage of HEIs that make e-Learning training attendance part of the staff annual appraisal

Data obtained from the 1,635 lecturer sample, who participated in this study, showed some interesting trends related to the implementation of e-Learning training in Malaysian HEIs. Figure 5.15 shows that almost two-thirds of respondents (65.7%) had undergone e-Learning training in the last two years in their respective institutions. In addition, a majority of them (77.3%) indicated that the e-Learning training was either effective or very effective (see Figure 5.16). As mentioned earlier in Figure 5.8, the main mode of training preferred by the lecturers (see Figure 5.17) is the face-to-face mode (45.1%) followed by the *blended* method (26.5%). The percentage of lecturers who are keen on *fully online* training mode (13%), *CD-based* (7.6%), and *on demand* mode (6.3%) is very small. Aspects or topics of interest to lecturers, as shown in Figure 5.18, are online assessment (67.7%), e-Content development (56.5%), content management (55.3%), and pedagogy related to e-Learning (38.3%). In terms of applying the knowledge and skills gained during the e-Learning training (see Figure 5.19), most of the lecturers (72.6%) felt that they have successfully applied it in their teaching. Only a small portion of lecturers (14.6%) felt that they managed to apply all the knowledge and skills learned, while 12.8% stated that they did not have the opportunity to apply what they learned during the e-Learning training.

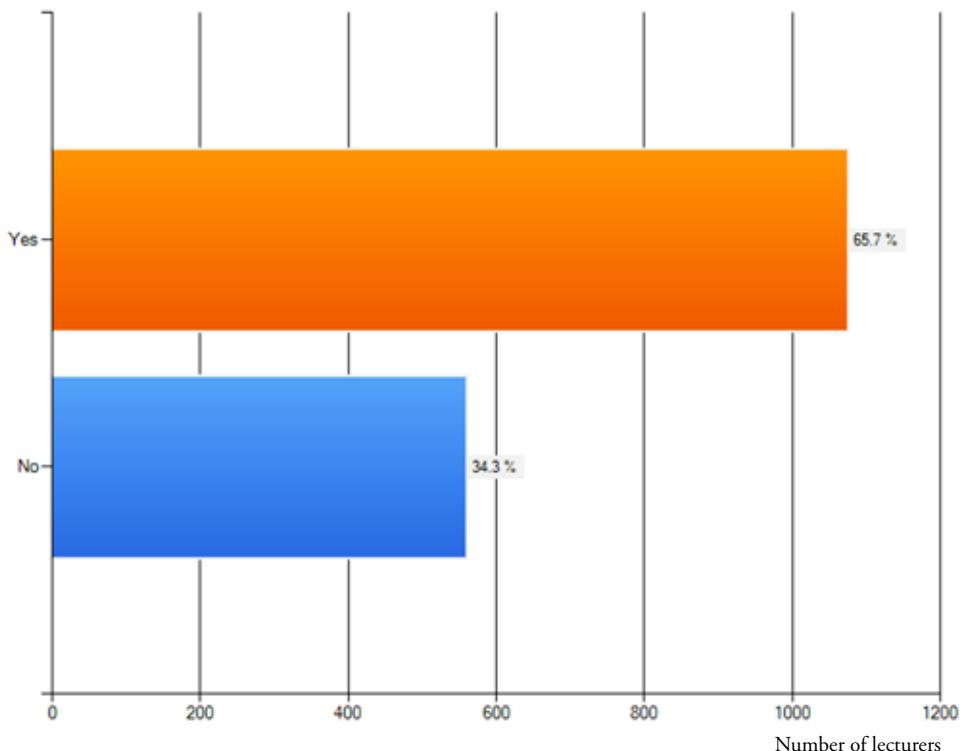


Figure 5.15: Number/Percentage of lecturers who have undergone e-Learning training in their respective institutions

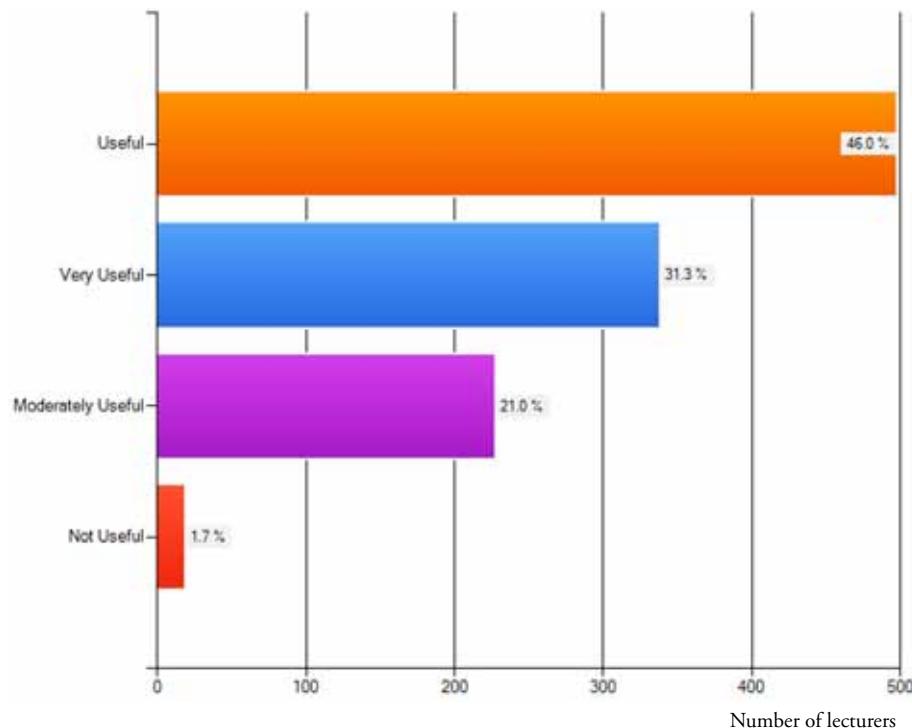


Figure 5.16: Lecturers' opinion on the usefulness of the e-Learning training that they attended

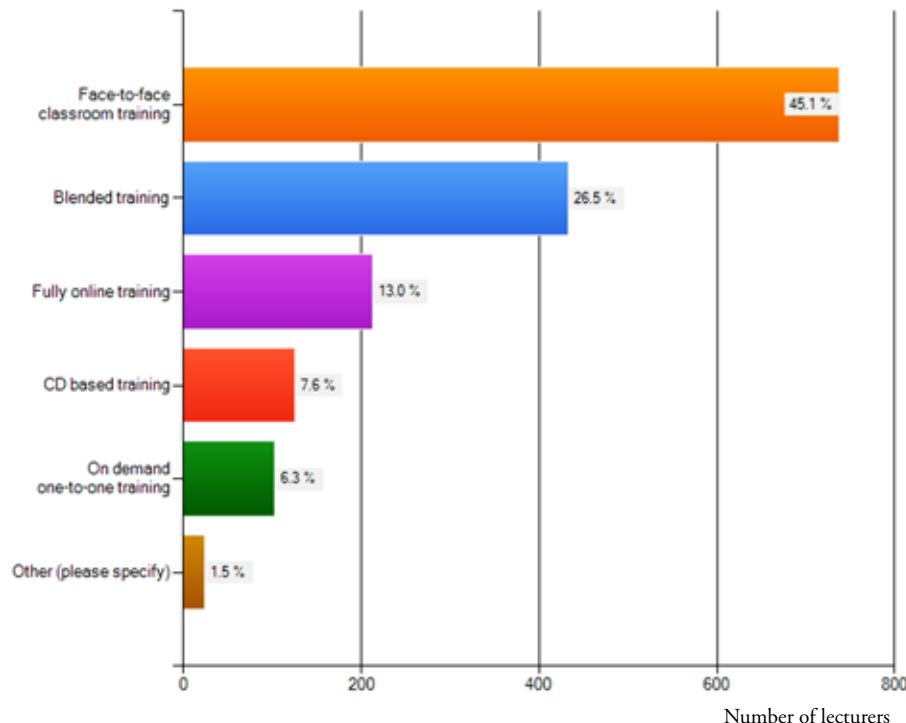


Figure 5.17: Lecturers' preferred training mode

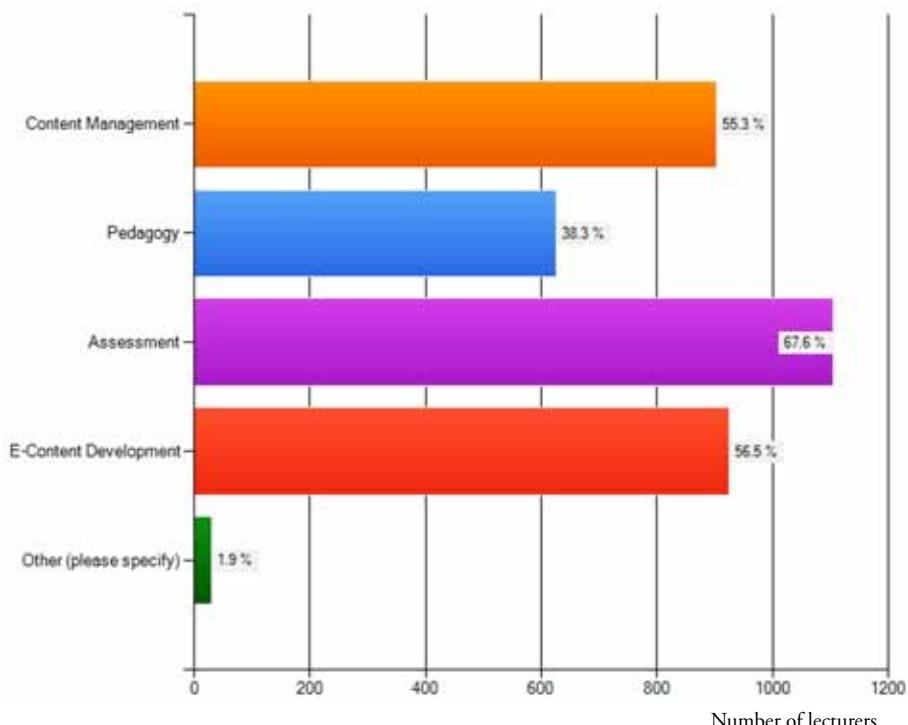


Figure 5.18: e-Learning topics lecturers are keen on

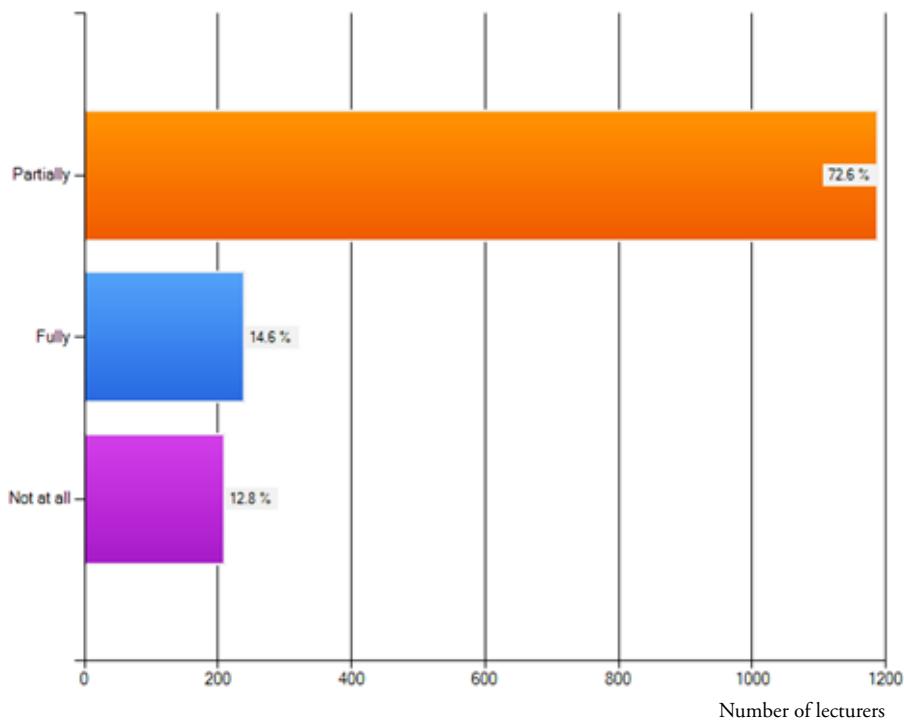


Figure 5.19: Level of knowledge and skills applied after the e-Learning training

Problems & Challenges Related to e-Learning Training

In terms of e-Learning training (see Figure 5.20), two key challenges faced by most HEIs involved in this study are moderate levels of motivation among the teaching staff (69.2%) and low attendance during training (53.8%). Other challenges include lack of expert trainers (38.5%), lack of training modules (30.8%), and unsuitable training schedule (30.8%). The findings also indicated that lack of budget (26.9%) and lack of facilities (26.9%) were not major problems in implementing e-Learning training in Malaysian HEIs. In addition, one of the main reasons why most of the lecturers did not attend the e-Learning training conducted by their respective institutions is the inappropriate timing of the training schedule which is usually conducted in the middle of a semester, when they are busy with their teaching duties (see Figure 5.21).

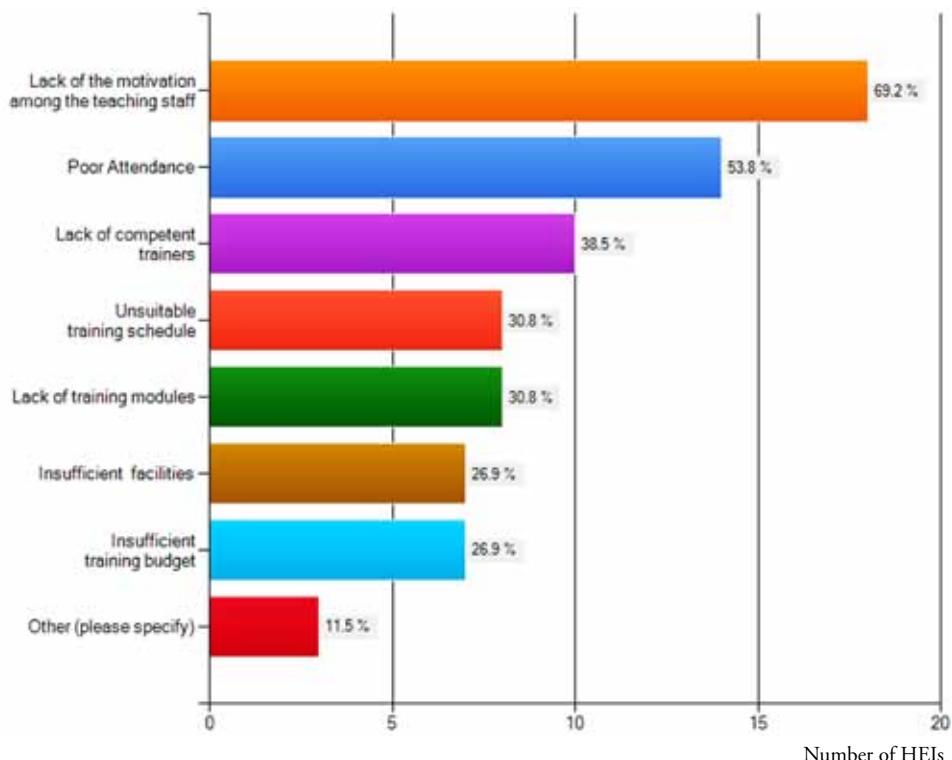


Figure 5.20: Main challenges in the implementation of e-Learning training in Malaysian HEIs

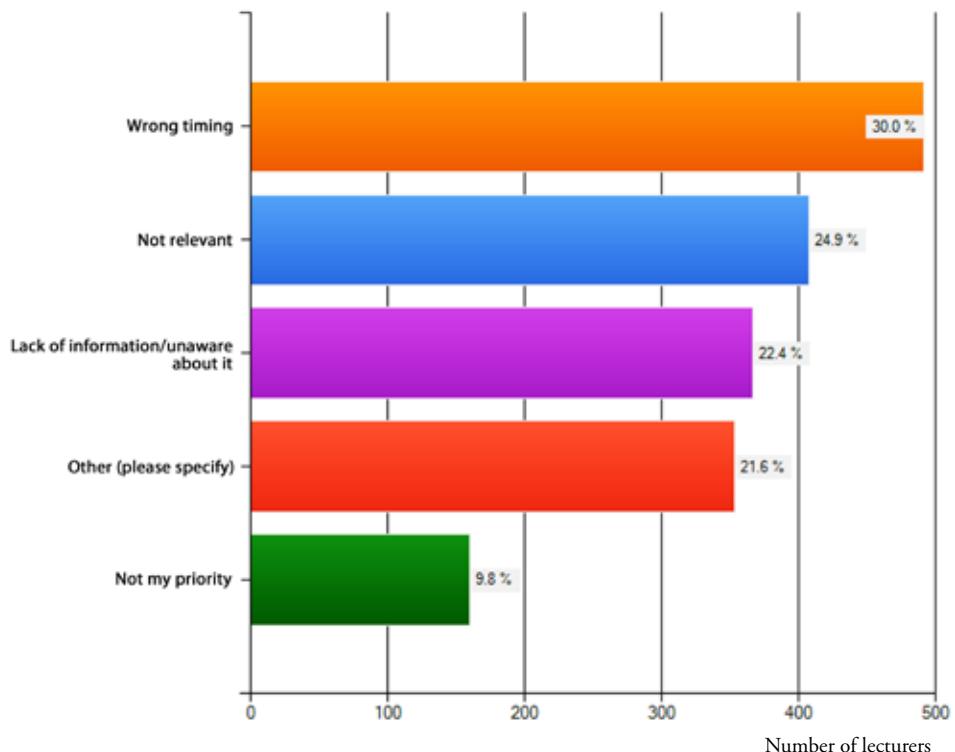


Figure 5.21: Main reasons why lecturers do not attend e-Learning training

Implication of Findings & Proposed Improvements

Although most of the HEIs have provided good infrastructure in their respective institutions and conducted a series of e-Learning training for their staff and students, there is still room for improvement. Based on the discussion of the findings above, there are several implications that can be addressed by a number of related parties including the Ministry of Higher Education (MOHE), HEIs, and lecturers. The findings of this study can help the three parties involved to address the problems/challenges faced by HEIs and to improve the quality of the e-Learning training content and the management of these training programmes.

The major implication at the national level is that MOHE should have a national e-Learning training policy to act as guidance for the coordination of training in all HEIs. With this policy, e-Learning training can be well planned to take into account the short, medium, and long-term needs and demands of e-Learning. More structured training programmes, an annual budget for e-Learning training, support centres, human capital development, incentives and motivation, continuous improvements in infrastructure, and integration with curriculum will be enhanced from time to time in the HEIs. Further, the implications of this study demand that the management team of the respective HEIs focuses on two main areas: management of e-Learning training and e-Content development training.

a. e-Learning Training Management

- i. The management team of HEI should provide a strong **e-Learning training programme in accordance with the national/HEI level** e-Learning policy in order to strengthen the implementation of e-Learning in their respective institutions and consequently, to enhance the quality of education in this country.
- ii. The management team of HEI should expose the staff to **new technologies such as** Web 2.0, Web 3.0, Web 4.0, and mobile technologies as well as upgrading the existing LMS according to the latest technologies and trends. Exposure to new technologies that can enhance the quality of teaching and learning should be emphasized on.
- iii. **The e-Learning training schedule and duration** can be **varied** to ensure that more staff can attend the training and it will not affect their teaching duties. There should be short, medium, and long training sessions so that more people (from management, academic staff, and support staff) can be involved in the process of developing human capital in the respective institutions.
- iv. The management is encouraged to give **recognition or incentives** to increase staff motivation to continue to integrate the latest technologies in e-Learning. Staff who are skilled enough to become internal as well as national e-Learning trainers should be given certificates, advance diplomas, and degrees to commensurate with their expertise.
- v. The face-to-face mode should dominate e-Learning training practice supported by self-study and online learning.

b. Content Development Training

- i. Specialized training programmes in **e-Learning pedagogy** should be increased and should involve more staff at the respective institutions. This is because e-Learning pedagogy is an important e-Learning training component which will determine the success and effectiveness of e-Learning at the respective institutions. At the same time, it will increase the number of e-Learning experts.
- ii. Development **of e-Learning** content needs to be improved by involving more staff members at the respective institutions to undergo continuous training. The presence of dynamic and effective e-Learning content will strengthen the online teaching and learning process, and at the same time, enhance the quality of teaching and learning at HEIs.

Conclusion

This chapter has described the findings and implications of this study from the perspective of e-Learning training in Malaysian HEIs. In particular, we looked at the angles of the status of e-Learning training in HEIs, trends and effectiveness of such training, as well as problems and challenges in executing e-Learning training in Malaysian HEIs.

Based on an analysis of data collected, two main conclusions can be made: first, the majority of the HEIs in Malaysia are responsive to the needs and demands of e-Learning training. Almost all of the HEIs surveyed have conducted e-Learning training for their staff and students. However, the quality of training management and e-Learning training content needs to be improved. Coordination of e-Learning training at the national and HEI level should be given serious attention by the relevant stakeholders so that the quality of teaching and learning at HEIs will continue to be preserved.

Chapter 6

e-Content Development in Malaysian Higher Education Institutions

Abdul Halim Sulaiman
Mohamed Amin Embi
Afendi Hamat

Introduction

Effective teaching will only occur if there is a dynamic balance between content, pedagogy, and technology. Changes in any of these components require modifications to the other components. Changes in teaching and learning technology also require changes in the content to be delivered. Teaching and learning through e-Learning requires the development of appropriate and interesting content for the technology to be fully utilized.

In this instance, quality e-Content would ensure that courses offered online are at par or better than the courses offered through face-to-face interaction. In order to find out the readiness of Malaysian HEIs in their efforts toward developing quality e-Content, this study looked at aspects such as whether the HEIs have a dedicated centre for e-Content development, the strategies adopted, the types of software used, the staff involved, the facilities available, and the incentives or awards offered.

This study also reviewed whether e-Learning materials are easily accessible, the levels of their interactivity, and whether the materials are *compatible* with the existing learning environment in HEIs. Lecturers' opinions are also obtained on their competency in developing e-Content, the extent of their involvement in developing e-Content, and the type of support that they hope will be provided by HEIs in developing e-Content. Finally, respondents were also asked about the challenges and issues they face in e-Content development, including whether the problem of copyright is a major issue in their respective institutions.

Methodology

Data related to e-Content development were obtained from 26 e-Learning administrators who responded to the Malaysian HEIs e-Learning Questionnaire (IT Manager) and from 1,635 lecturers who completed the Malaysian HEIs e-Learning Questionnaire (Instructor). For the purpose of this analysis, nine items from the first questionnaire were taken into account, while from the second group, three items were used. The findings are presented in light of three main perspectives, namely, (i) status of e-Content development (ii) trends of e-Content development, and (iii) problems and challenges of e-Content development in Malaysian HEIs.

Findings

Status of e-Content Development

Figure 6.1 shows that only half (50%) of the HEIs involved in this study have a dedicated centre/department/unit to manage e-Content development. Generally, the main strategy (92.3%) adopted by most Malaysian HEIs was to establish a collaboration between these dedicated units with subject matter experts who were the lecturers, as shown in Figure 6.2. The main applications used for e-Content development (Figure 6.3) were *Flash* (92.3%), followed by *Articulate* (46.3%), *Adobe Captivate* (38.3%), *Camtasia Studio* (30.8%), *Lecture Maker* (15.4%), and *Raptivity Interactive Builder* (15.4%). The breakdown of individuals involved in the development of e-Content are as shown in Figure 6.4. In addition to lecturers or subject matter experts (92.3%), graphic designers (84.6%) and multimedia developers (84.6%) were the main groups of people involved in this process. Figure 6.5 shows kinds of the support provided by Malaysian HEIs for lecturers who wish to develop e-Content. Technical advice and consultancy form the bulk of the support facilities provided by the HEIs (84.6%). Other major forms of support are in the form of equipment/authoring software (76.9%) and training on the development of e-Content (69.2%). So far, only one (7.7%) Malaysian HEI provides e-Content development grants to academic staff.

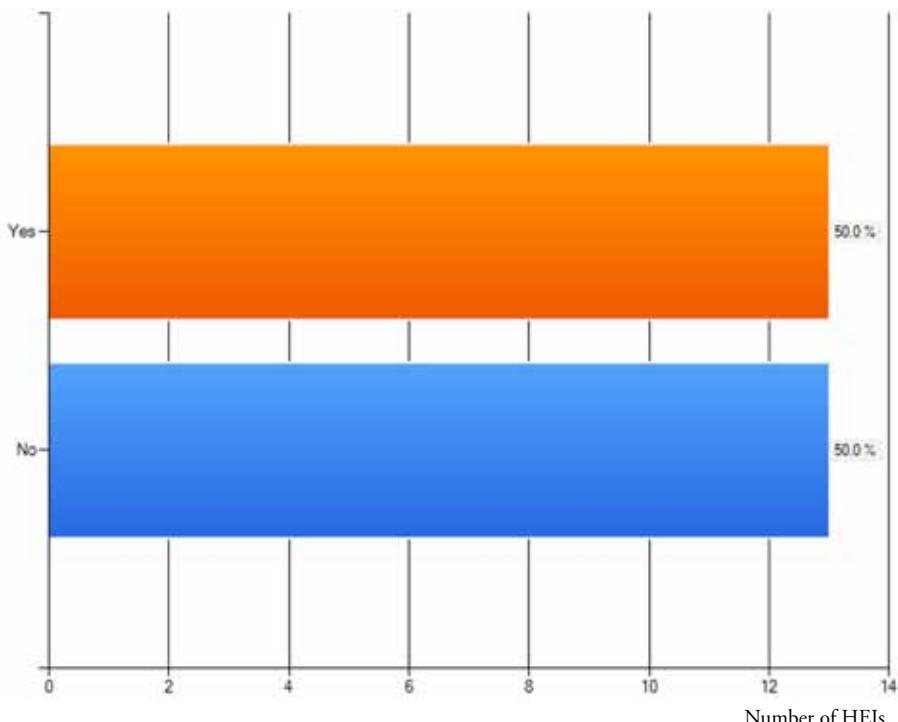


Figure 6.1: Number/Percentage of HEIs with a dedicated centre for the development of e-Content

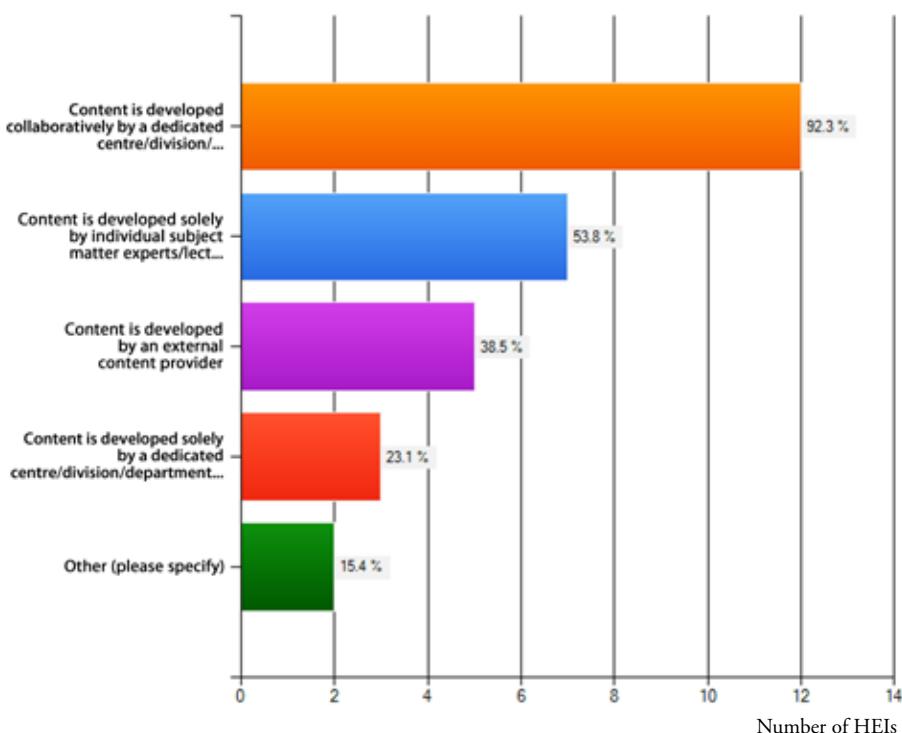


Figure 6.2: e-Content development strategies among Malaysian HEIs

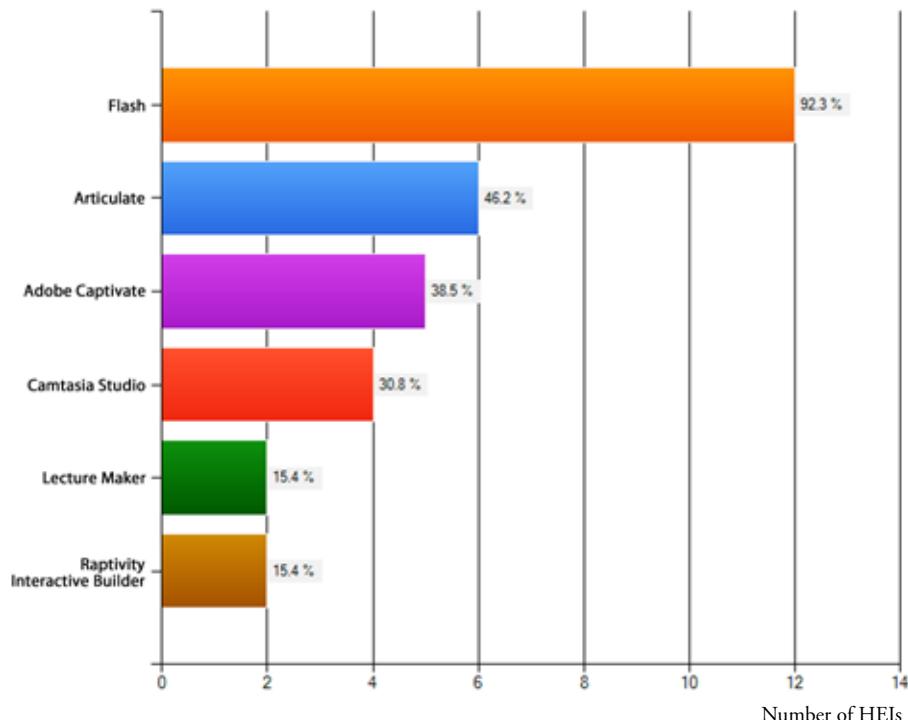


Figure 6.3: Applications used for e-Content development in Malaysian HEIs

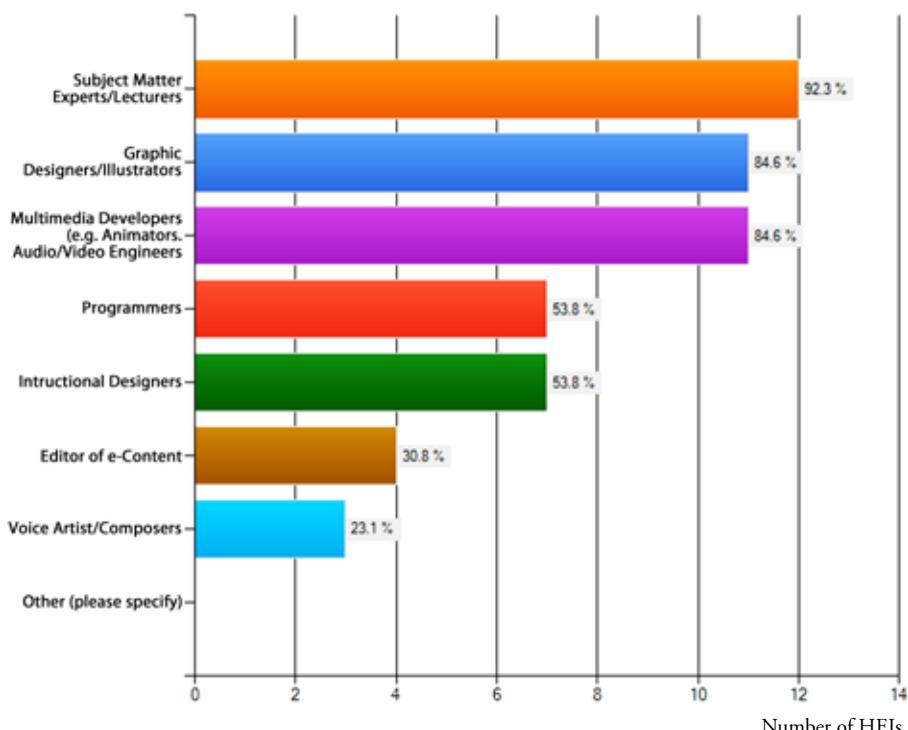


Figure 6.4: Individuals who are involved in the development of e-Content in Malaysian HEIs

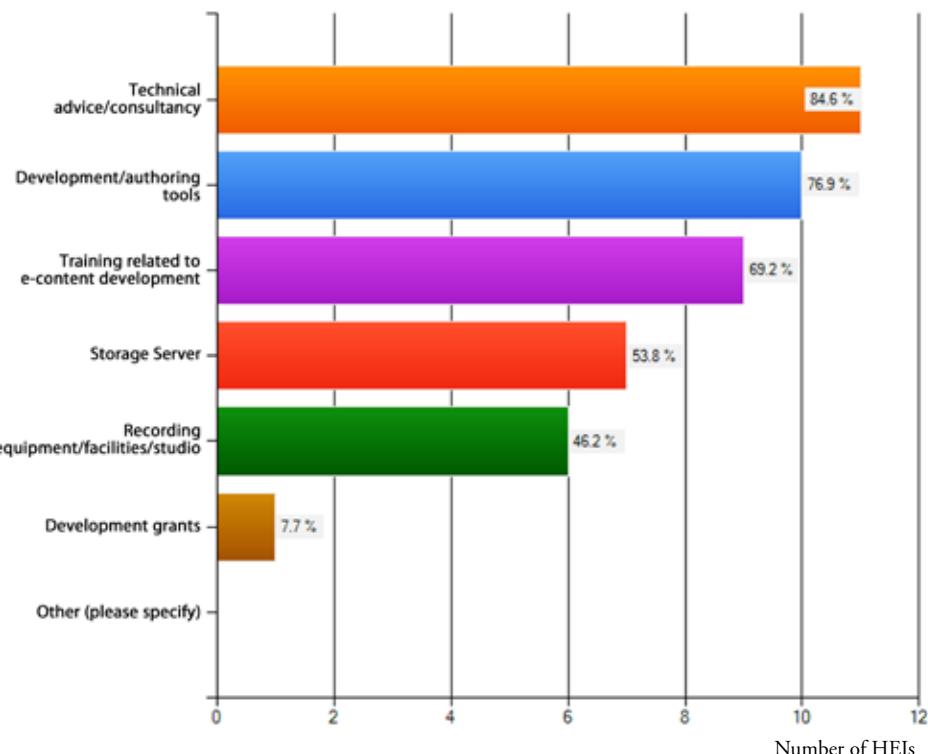


Figure 6.5: Facilities provided by Malaysian HEIs to lecturers who wish to develop e-Content

The data (Figure 6.6) show that out of the 13 HEIs which have a dedicated centre responsible for the development of e-Content, only 6 (46.2%) provide incentives for lecturers to develop their own e-Content. Out of these six HEIs, four provide incentives in the form of awards, three in the form of honorarium, and two in the form of reduced teaching load (Figure 6.7).

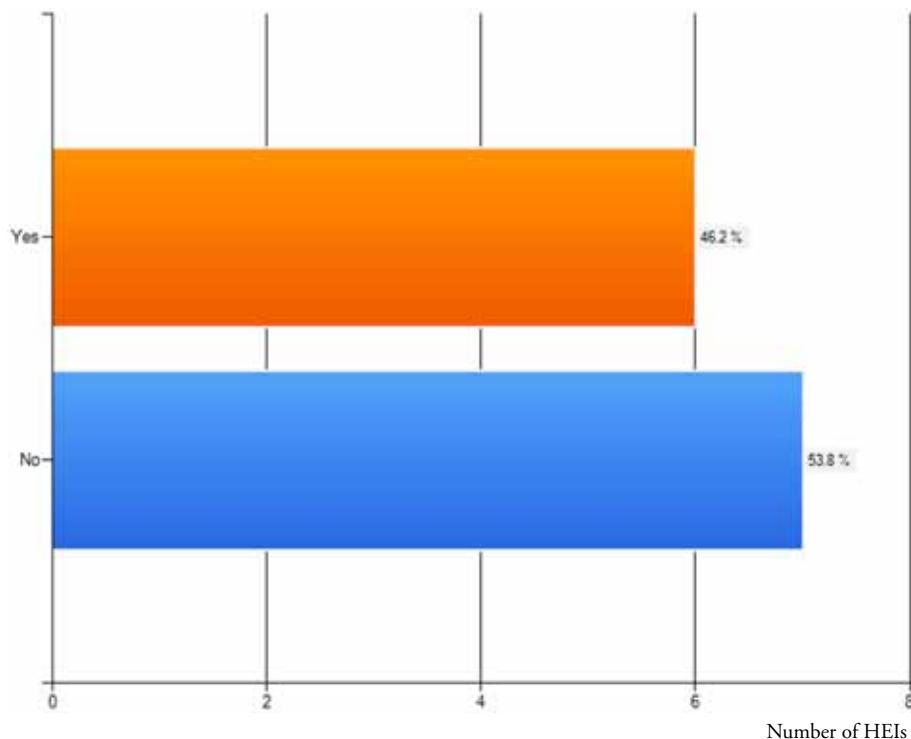


Figure 6.6: Number/Percentage of Malaysian HEIs that provide incentives to lecturers who develop their own e-Content

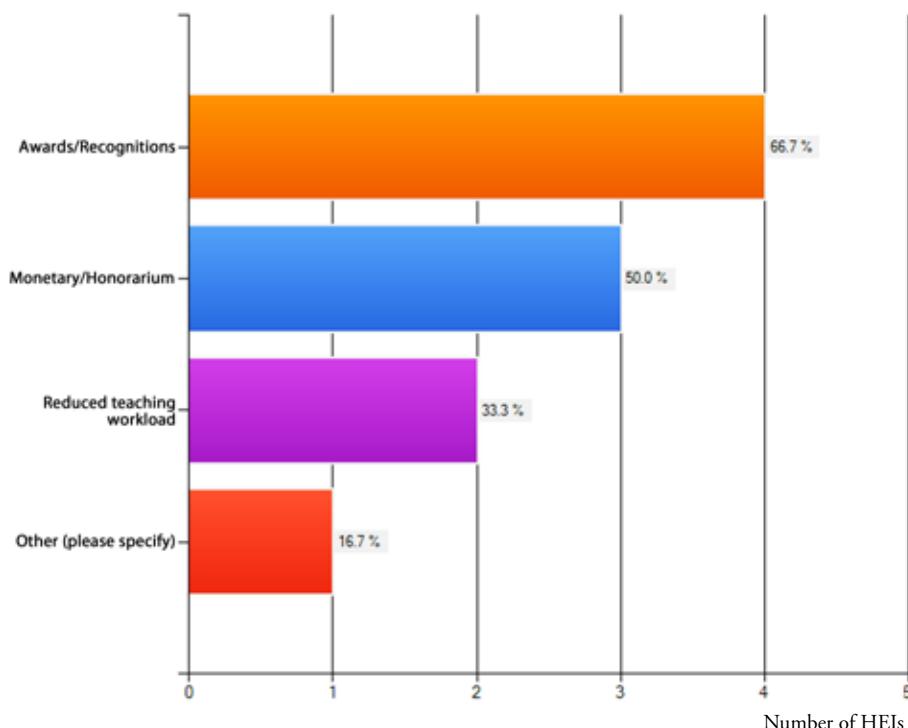


Figure 6.7: Incentives provided by Malaysian HEIs to lecturers who develop their own e-Content

Trends in e-Content Development

Figure 6.8 shows that in general, the online materials can be accessed easily in the majority of HEIs (69.2%), while in six HEIs (23.1%) it can be accessed very easily. In terms of *compatibility* (Figure 6.9), 69.2% were *compatible*, 23.1% were *very compatible*, while 7.7% were *moderately compatible*. Figure 6.10 shows that in terms of interactivity of the online materials, only 3.8% were very interactive, 34.6% were interactive, 50% were moderately interactive, and 11.5% were not interactive.

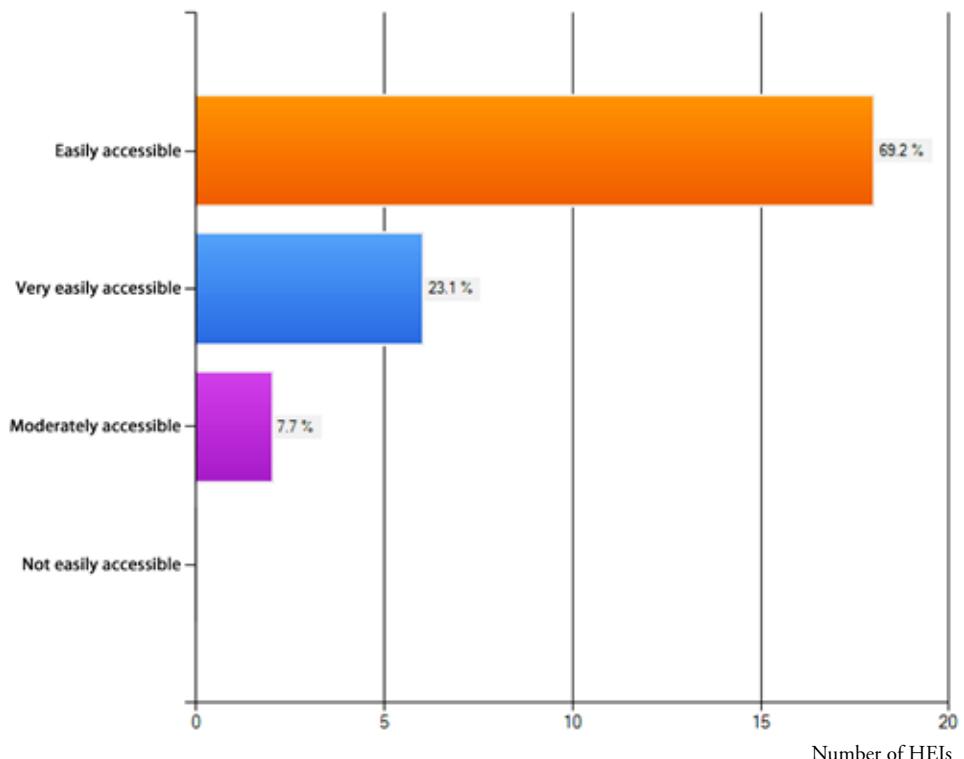


Figure 6.8: Accessibility level of online materials in Malaysian HEIs

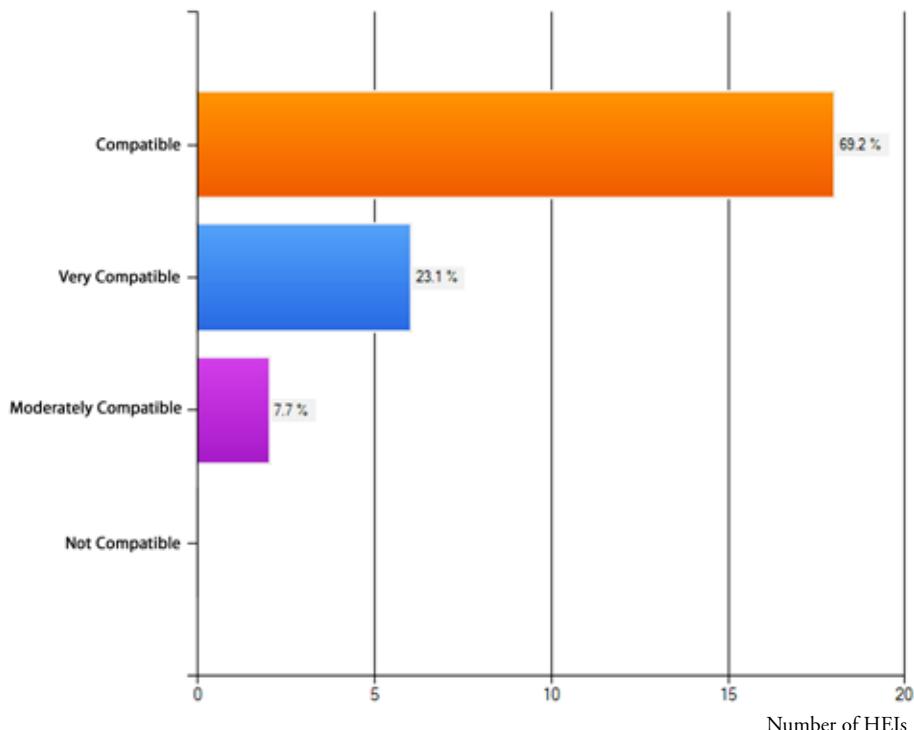


Figure 6.9: Compatibility levels of online materials in Malaysian HEIs

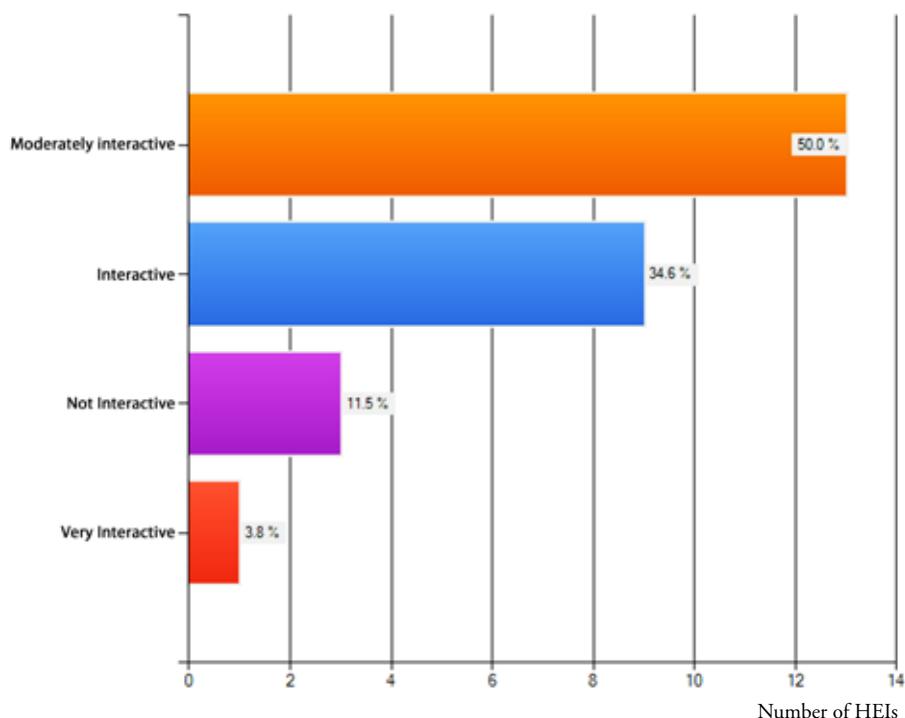


Figure 6.10: Interactivity levels of online materials in Malaysian HEIs

Data on e-Content development obtained from the 1,635 lecturers surveyed show some interesting trends. Firstly, as shown in Figure 6.11, only 17.1% lecturers believed that they were not competent to develop e-Content. Half of them (50.4%) felt that they are moderately competent; 27.8%, competent; and 4.6%, very competent. A total of 1,438 lecturers or 88% believed that they should be involved in the development of e-Content (Figure 6.12).

Secondly, as shown in Figure 6.13, the survey shows that the main support needed to develop e-Content was technical support (77.3%). This is followed by authoring software (72.1%), e-Content development grants (57.4%), and recording studio facility.

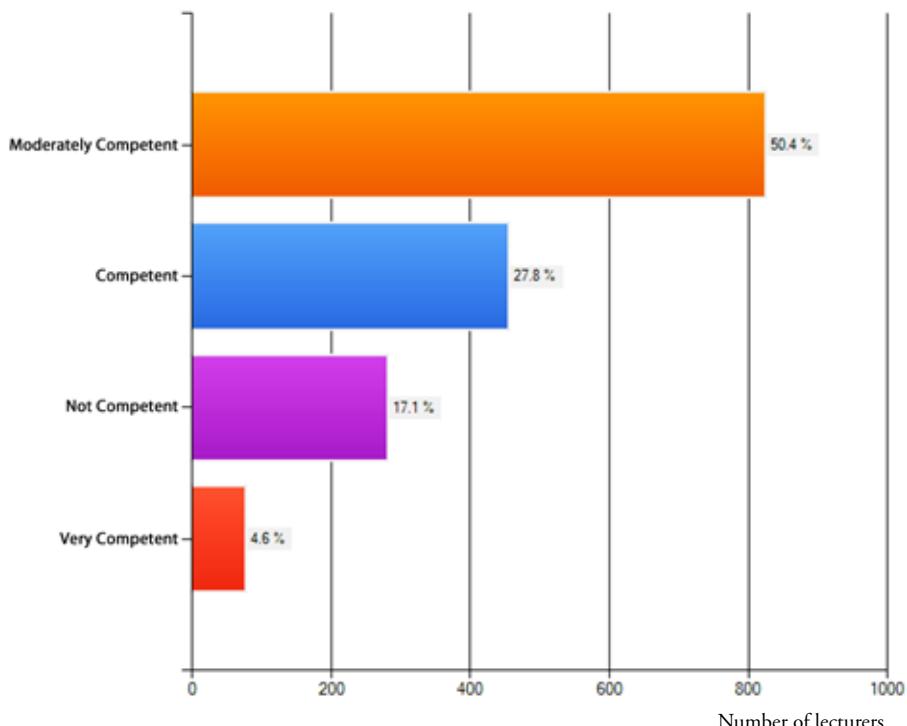


Figure 6.11: Lecturers' opinion on their competency in developing e-Content

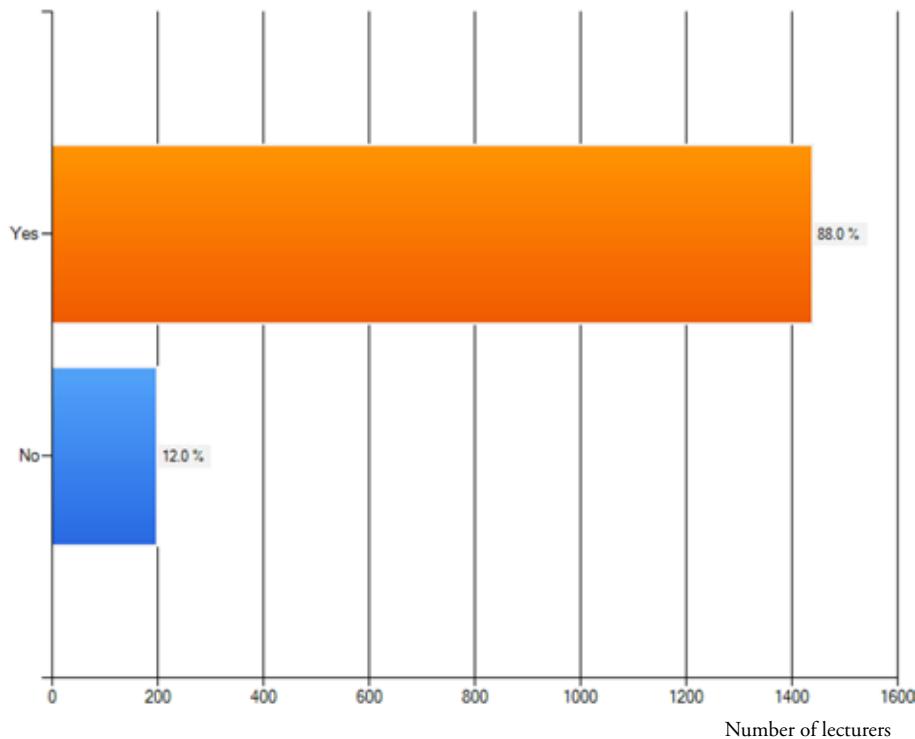


Figure 6.12: Lecturers' opinions on their involvement in the development of e-Content

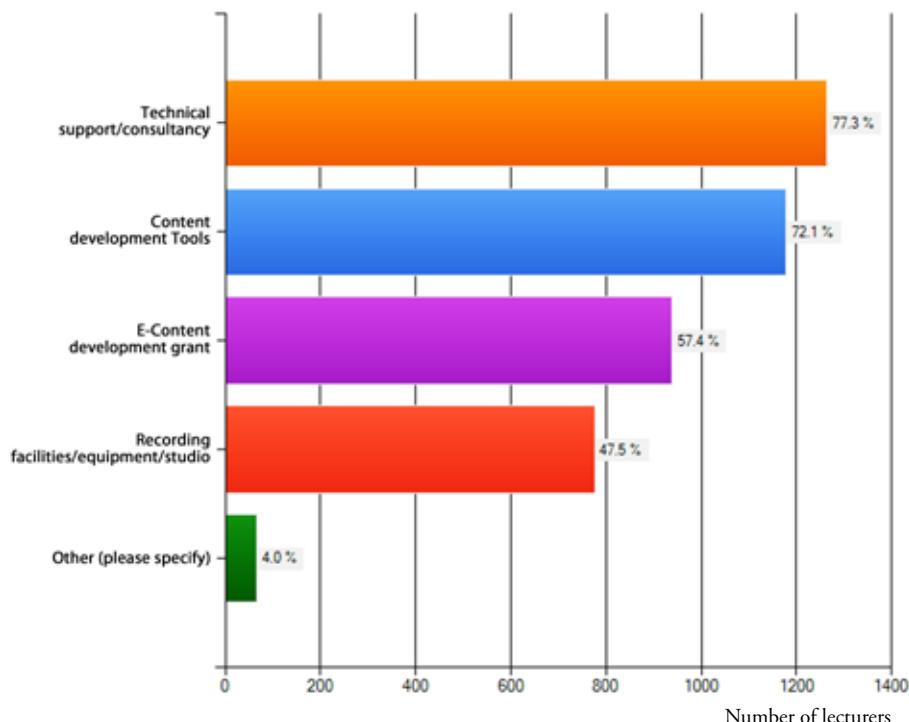


Figure 6.13: Type of support needed by lecturers who want to develop their own e-Content

Problems & Challenges Related to e-Content Development

As shown in Figure 6.14, in terms of e-Content development, the five major challenges faced by most HEIs were the lack of motivation among academic staff (65.4%), lack of expertise (53.80%), lack of a dedicated team to develop e-Content (53.8%), lack of commitment among the academic staff (46.2%), and lack of funding/budget (46.2%). Surprisingly, support from top management (15.4%) was not the main challenge faced by HEIs in the development of e-Content. There were also HEIs that gave the reasons of ‘no policy to encourage staff to develop e-Content’ and ‘lack of e-Content development staff’. Another problem faced by the majority (80.8%) of Malaysian HEIs in the development of e-Content was the copyright issue (Figure 6.15).

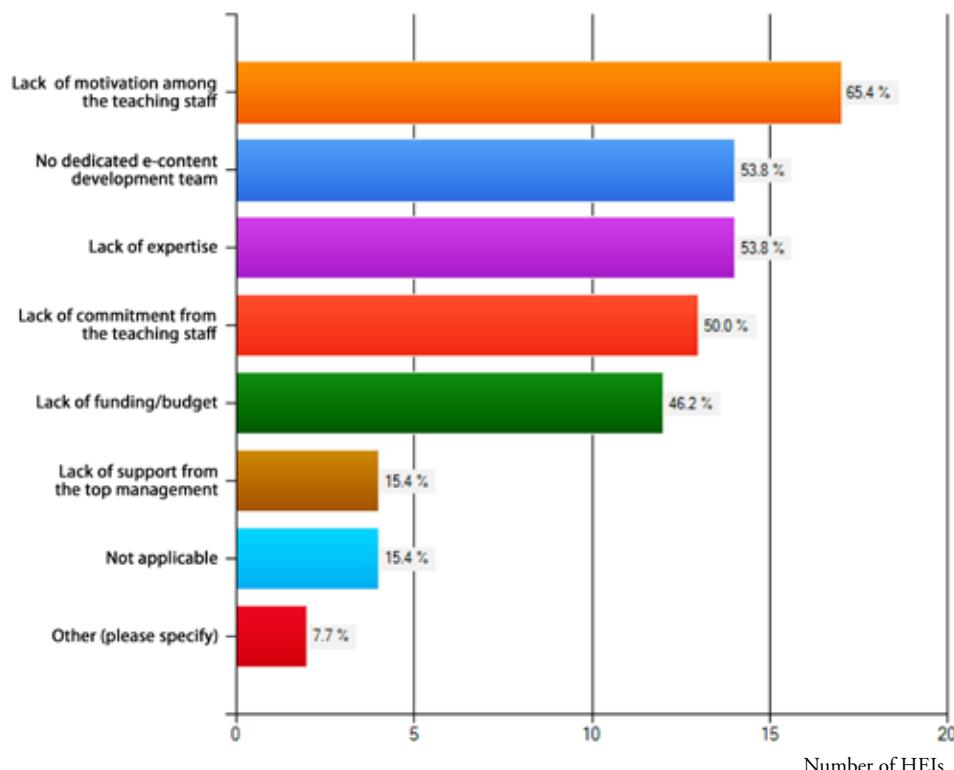


Figure 6.14: Major challenges of e-Content development in Malaysian HEIs

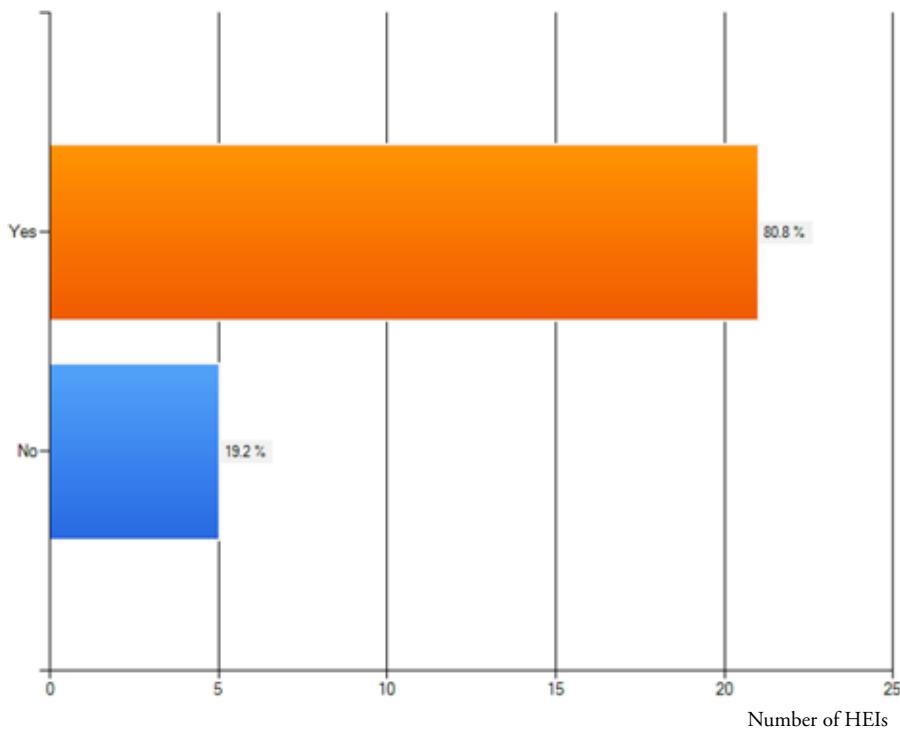


Figure 6.15: Copyright issues related to e-Content development

Implication of Findings and Proposed Improvements

The findings clearly indicate that not all HEIs in Malaysia are on the same level in terms of their readiness to develop e-Content. Firstly, for those HEIs that have a dedicated centre for the development of e-Content, a clear policy, especially in terms of incentives, needs to be formulated, since the establishment of these centres involve high costs, especially in terms of equipment, software, and human resources. In encouraging lecturers to take full advantage of these centres, there must also exist criteria to determine the type of courses or materials that should be given priority. This is because the development of e-Content materials, which involve the use of software such as *Flash*, requires time and effort; therefore, it is quite impossible to develop all of the courses offered by HEIs simultaneously.

Secondly, for those HEIs that do not have a dedicated centre to develop e-Content, it does not mean that e-Content cannot be developed. The use of software such as PowerPoint is adequate for most courses, and with additional materials which are available for free on the Internet, lecturers should be able to teach and learn online effectively. However, to take full advantage of these software applications, basic training on how to use them should be made available by HEIs. The findings of this survey clearly show that lecturers wished that HEIs would provide technical support, including training in order to facilitate the development of e-Content. For both methods, incentives should be provided, such as giving awards or honorarium to the lecturers who have developed the best e-Content. Since most HEIs, especially the public HEIs offer common university courses, the e-Content for these courses can be developed jointly by a centre under the Ministry of Higher Education. This is a more efficient use of resources—time, money and manpower—

while maintaining an acceptable level of quality. This is in line with the efforts of several leading universities in the world that provide *open courseware* which can be accessed freely by anyone.

Copyright issues must also be addressed. A clear policy at the ministry level should be formulated as lecturers are reluctant to develop or share e-Content, especially if their efforts are not recognised or compensated accordingly.

Conclusion

In this chapter, we have presented the status, trends, effectiveness, and challenges of e-Content development in Malaysian HEIs from the perspective of 26 e-Learning administrators and 1,635 lecturers involved in this study.

Chapter 7

Integration of e-Learning in Teaching & Learning in Malaysian Higher Education Institutions

Norazah Mohd Nordin
Mohamed Amin Embi
Zaidan Abdul Wahab

Introduction

The integration of education and technology has brought major changes in education. The introduction of broadband Internet has driven many lecturers of HEIs to integrate the activities of ICT (Information and Communication Technology) in their teaching. To enable Malaysia to compete at the global level, many new policies have been formulated, so that education in Malaysia is in line with the modernization that students in this country are going through. In addition, academic staff of HEIs are urged to equip themselves with ICT knowledge and skills to face an increasingly challenging profession. The roles of educators in HEIs are changing as the education paradigm shifts towards student centered learning. The developments in the electronic world have given the opportunity for man to provide information more easily compared to conventional methods.

e-Learning is an interactive environment that allows students and lecturers to interact with each other and with other students using information technology tools and applications. This chapter presents an interesting discussion on the integration of e-Learning in the teaching and learning process. The information for this interesting discussion is derived from IT managers, lecturers, and students of HEIs. Subtopics discussed include the status of offering online courses, trends in the integration of e-Learning in teaching & learning, and the problems and challenges of integrating e-Learning in teaching and learning in Malaysian HEIs.

Methodology

Information related to the integration of e-Learning in teaching and learning were obtained from 26 e-Learning administrators who completed the Malaysian HEIs e-Learning Questionnaire or MIeLQ (M), 1,635 lecturers who completed the MIeLQ (I), and 6,301 students who filled the MIeLQ (S). Analysis for this section involved 2 items from MIeLQ (M), 10 items from MIeLQ (I), and 11 items from MIeLQ (S). The findings are presented based on three main perspectives, namely, (i) the status, (ii) trends, and (iii) problems and challenges of integrating e-Learning in teaching and learning in Malaysian HEIs.

Findings

Status of Courses Offered Online

In general, as shown in Figure 7.1 and Table 7.1, from the 26 HEIs surveyed, 42.3% or 11 HEIs offered more than 50% of their courses online. A total of 15.4% or four HEIs offer 0–10% courses online, 11.5% or three HEIs offer 11–20% courses online, 11.5% or three HEIs offer 21–30% courses online, 11.5% or three HEIs offer 31–40% courses online, while 7.7% or two HEIs offer 41–50% courses online. As shown in Figure 7.2, the most popular e-Learning mode among the HEIs is the supplementary to face-to-face mode, followed by the *blended learning* mode.

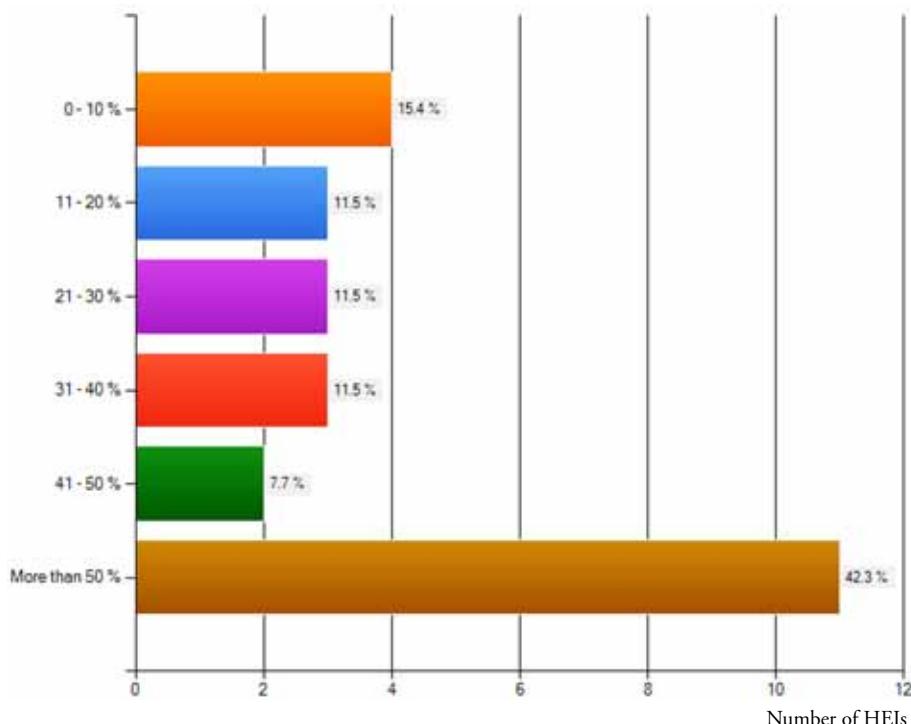


Figure 7.1: Percentage of courses offered online

Table 7.1: Comparison among HEIs regarding the percentage of courses offered online

HEIs	0–10%	11–20%	21–30%	31–40%	41–50%	More than 50%
UKM						X
UPM						X
UM			X			
USM				X		
UTM						X
UiTM						X
UIAM			X			
UPSI						X
UUM				X		
UMS		X				
UNIMAS					X	
UniMAP	X					
UMP						X
UMK		X				
UMT						X
UPNM	X					
UniSZA	X					
UTeM		X				
UTHM					X	
USIM						X
OUM						X
AeU				X		
SUC						X
PUO						X
PSA			X			
PJB	X					

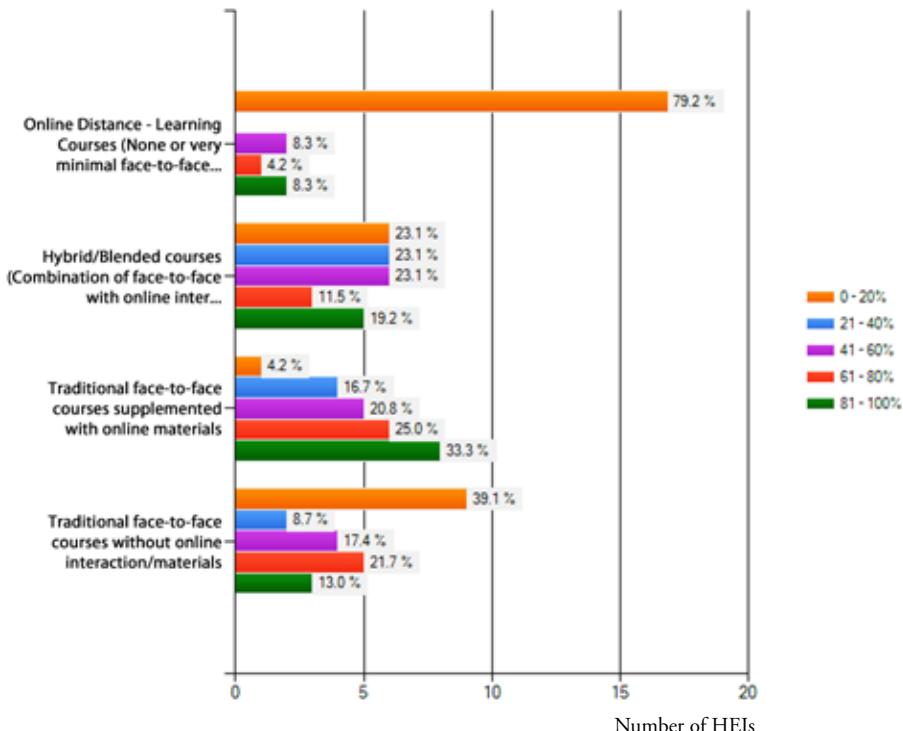


Figure 7.2: Types of e-Learning courses offered at Malaysian HEIs

Trends in the Integration of e-Learning in Teaching & Learning

Figure 7.3 shows that the percentage of *blended* courses offered by lecturers are between 1–80%, while Figure 7.4 shows that the percentage of online courses taken by students is 81–100% (27.3%). When asked whether there was an increase in e-Learning activities in the past two years, the majority of lecturers (73.5%) agreed, as shown in Figure 7.5.

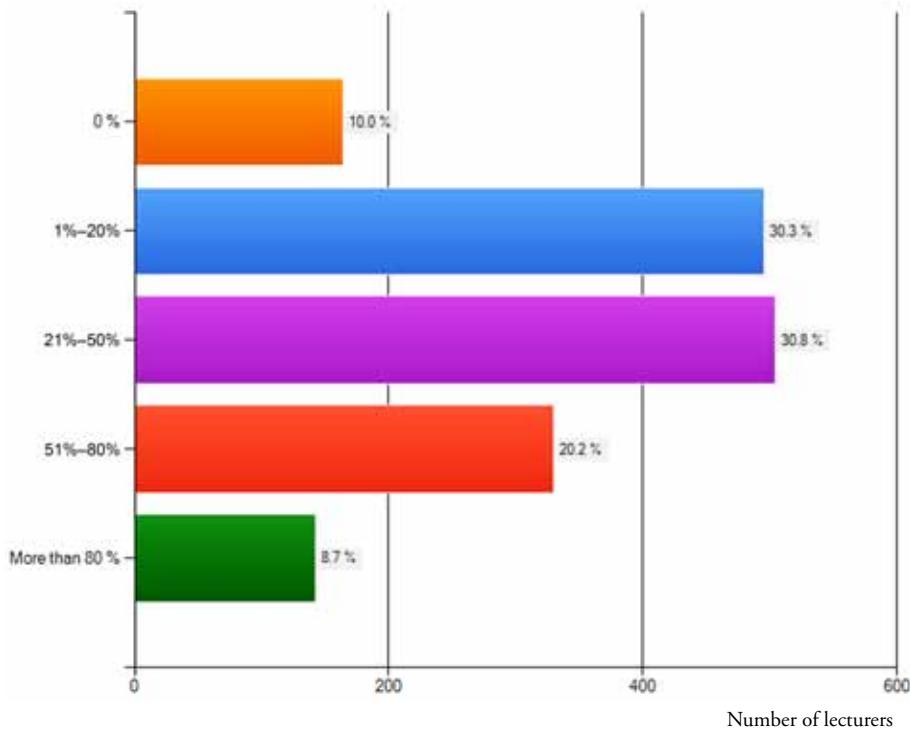


Figure 7.3: Percentage of courses conducted in a blended mode by lecturers

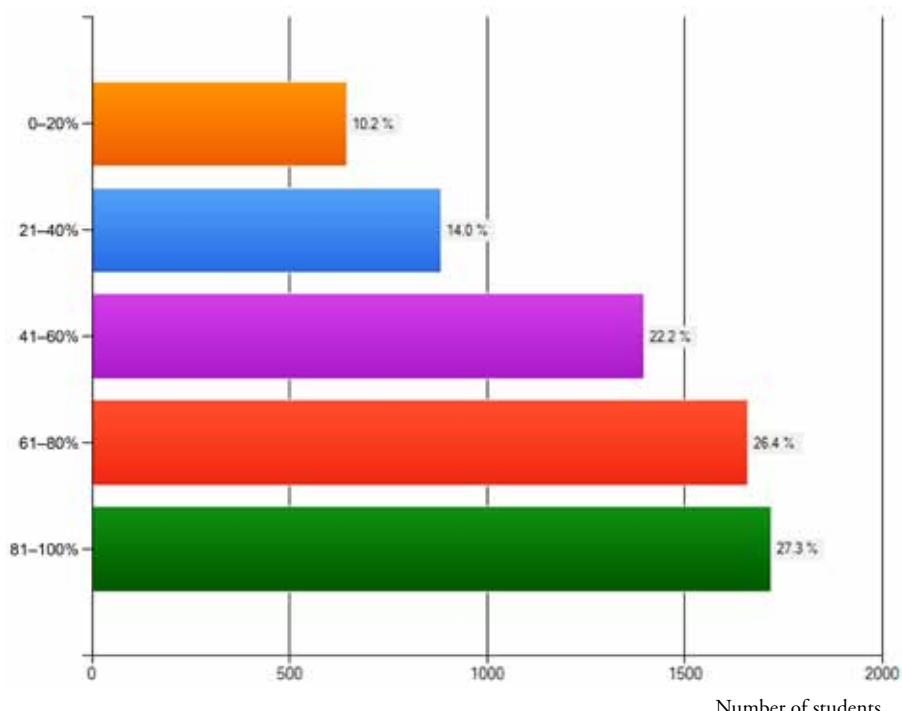


Figure 7.4: Percentage of online courses taken by students

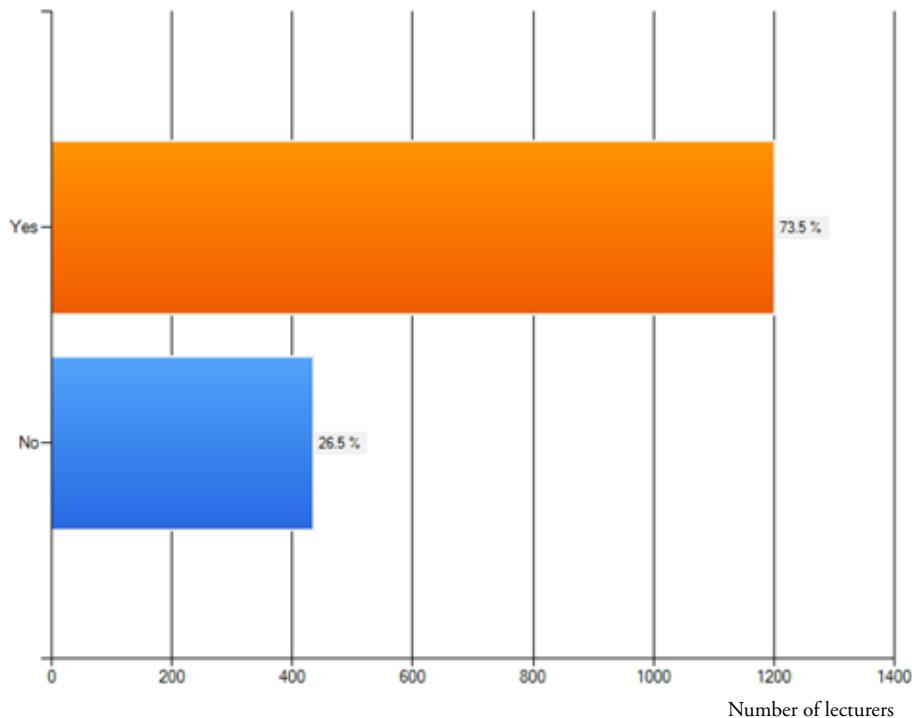


Figure 7.5: Lecturers' opinion on whether there was an increase in e-Learning activities over the past two years

Data in Figure 7.6 shows that most students access the online courses that they are taking once a week (37.7%), followed by those who access it once daily (29.6%), and those who access it several times a day (17.6%). The number of students who do not access their online courses at all is very little, i.e. 135 or 2.1%. Figure 7.7 shows that most students access their online courses from the hostel (71.4%), followed by those who access it the computer laboratory (50.2%), and those who access it from home (46.9%). As shown in Figure 7.8 and Figure 7.9, most of them access online courses using their own laptops (94.2%), and 63.7% of them use the campus wireless network as the main mode of access to the online courses.

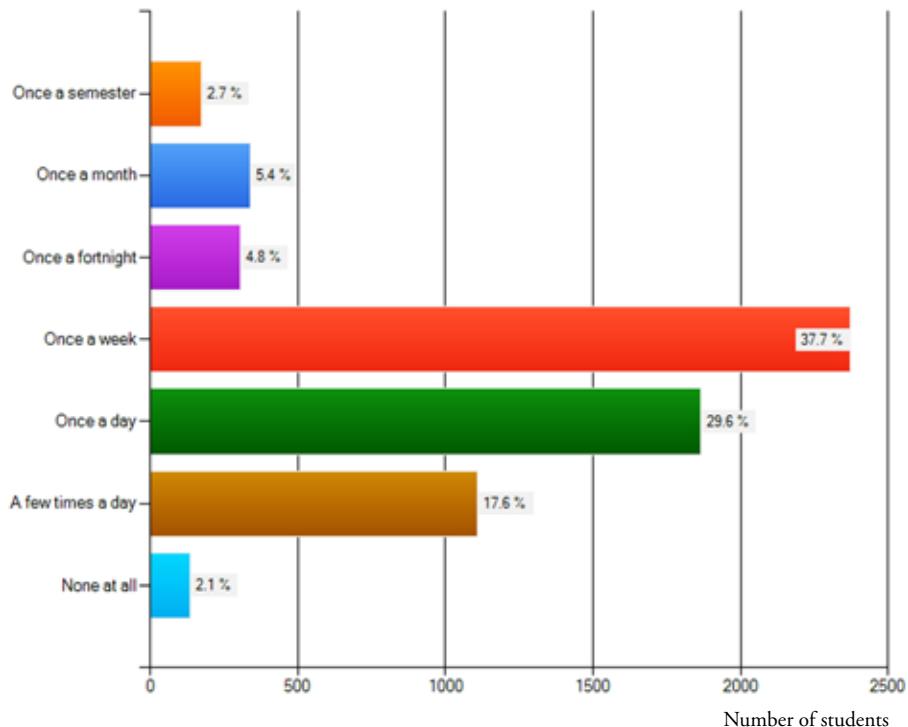


Figure 7.6: Frequency of access to online courses by students

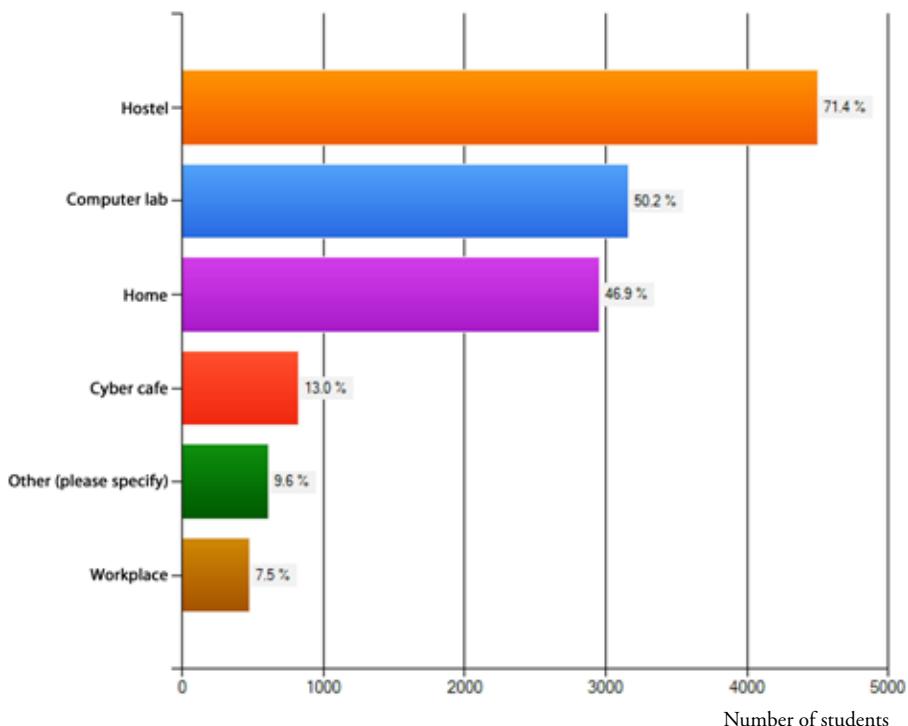


Figure 7.7: Location where students access their online courses

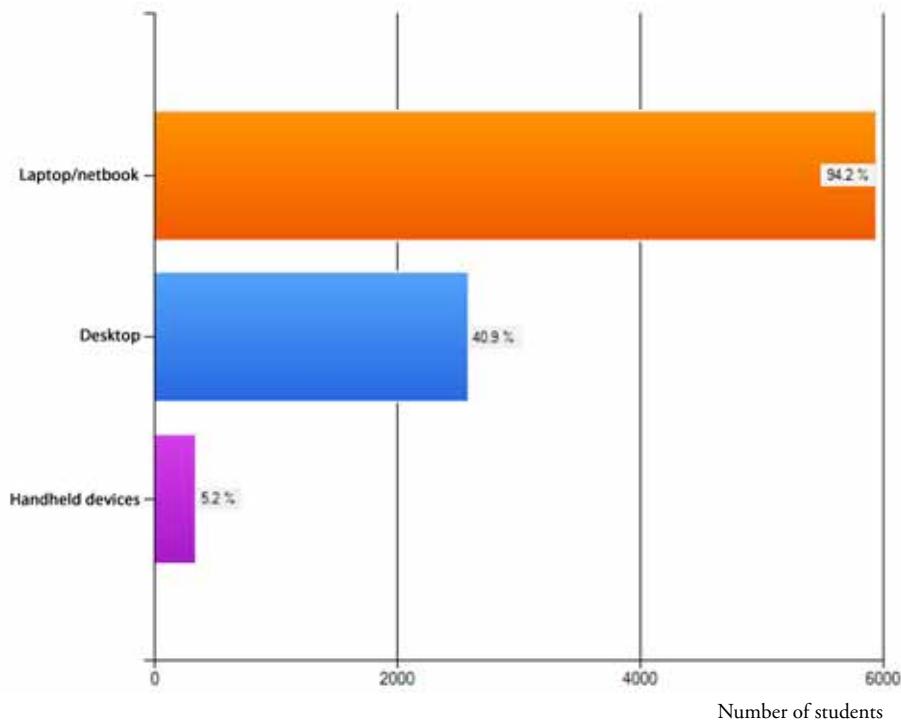


Figure 7.8: Equipment used by students to access their online courses

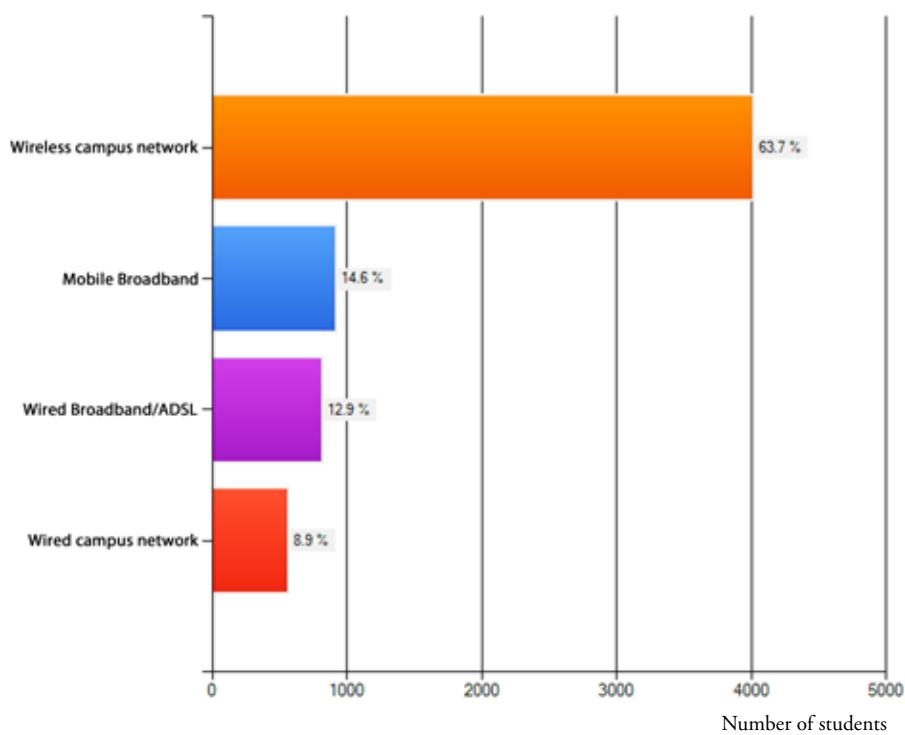


Figure 7.9: Main mode of access to online courses by students

Figure 7.10 shows the percentage of materials provided online by the lecturers. The data showed that only 13.8% lecturers provide more than 80% online learning materials. Most of the lecturers (79.1%) provide between 1–80% online learning materials. The main file formats provided by lecturers (see Figure 7.11) and downloaded by students (see Figure 7.12) were common file types such as *pdf*, *ppt*, *doc*, and *xls* (96.8%). Multimedia files provided are very few (21.3%).

In terms of how the learning materials were uploaded by the lecturer, Figure 7.13 shows that the majority of lecturers (50.1%) preferred to upload materials on a weekly basis before classes begin. Figure 7.14 shows that this method is found to be the most preferred by students (44.6%). However, as shown in Figure 7.15, most students (84.7%) prefer to read the materials *offline* rather than online.

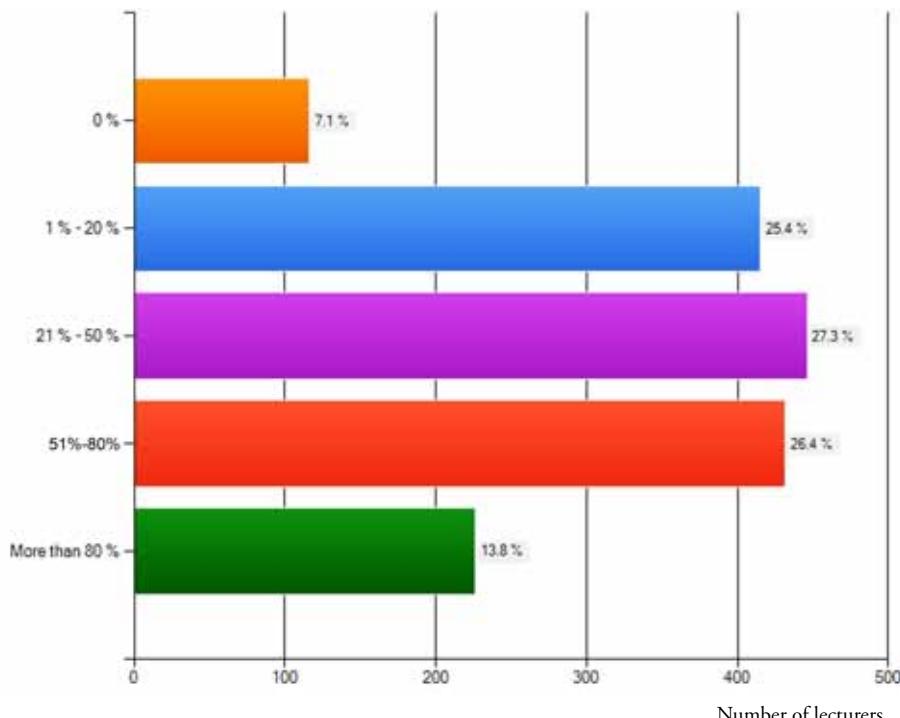


Figure 7.10: Percentage of online learning materials provided by lecturers

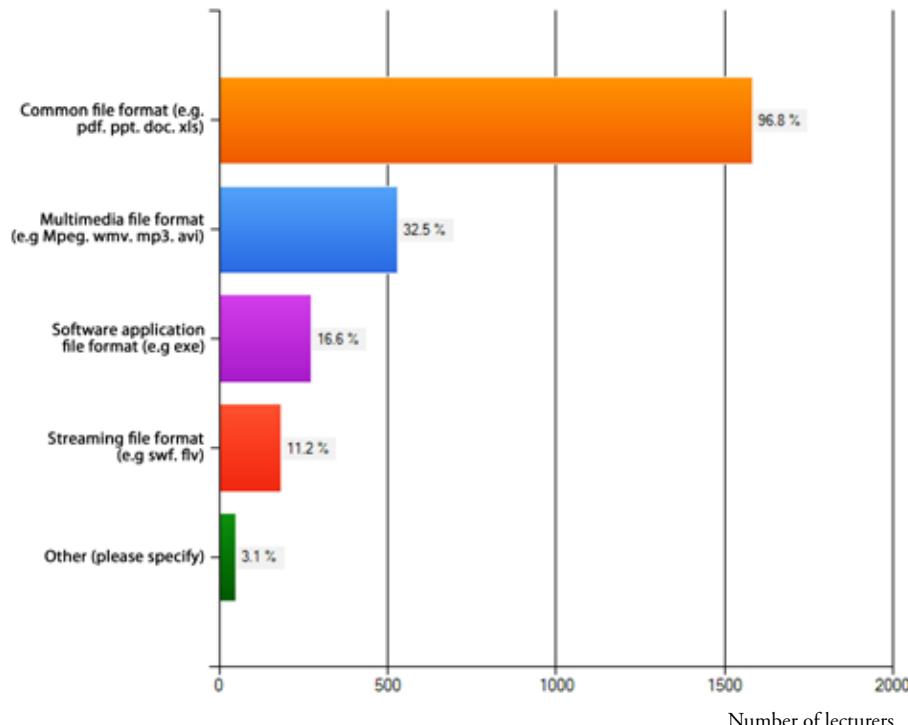


Figure 7.11: Format of online learning materials provided by lecturers

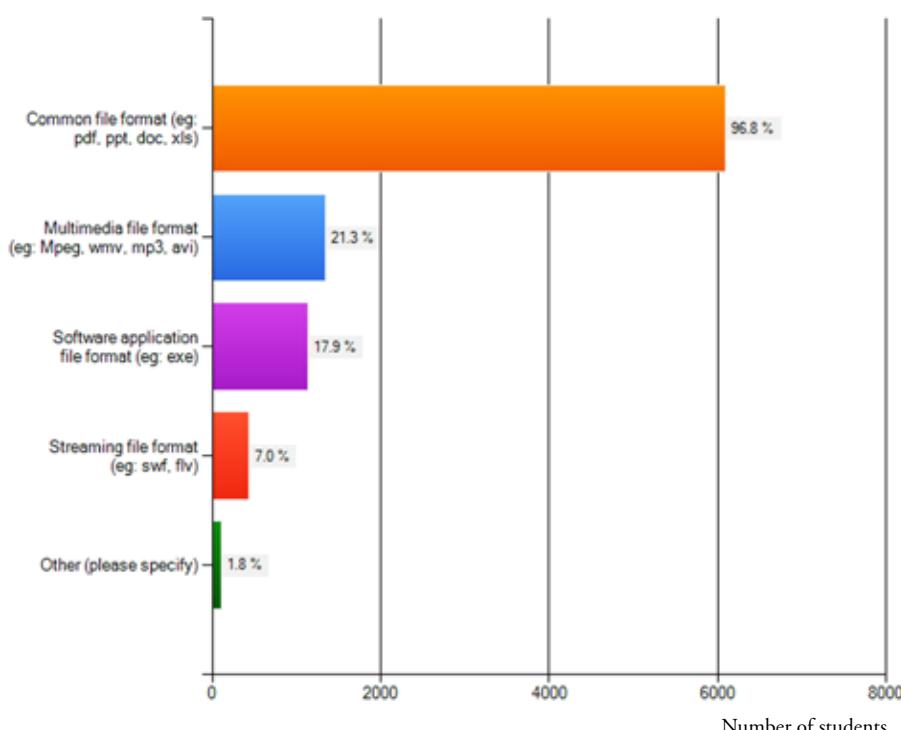


Figure 7.12: Common file formats of online learning materials received by students

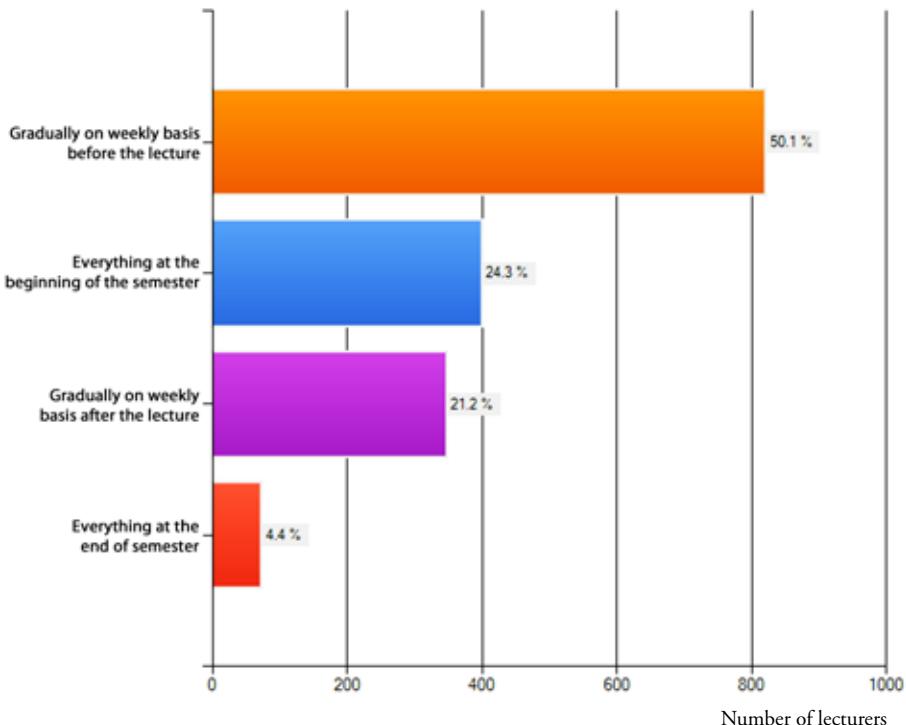


Figure 7.13: Methods lecturers used to upload online learning materials

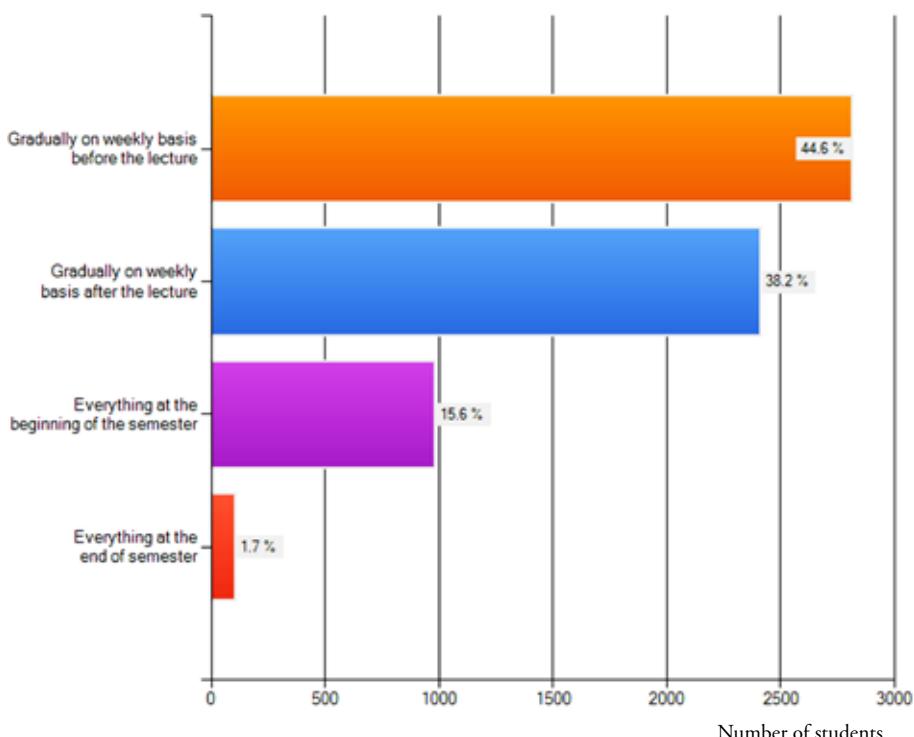


Figure 7.14: Students' most preferred method to download online learning materials

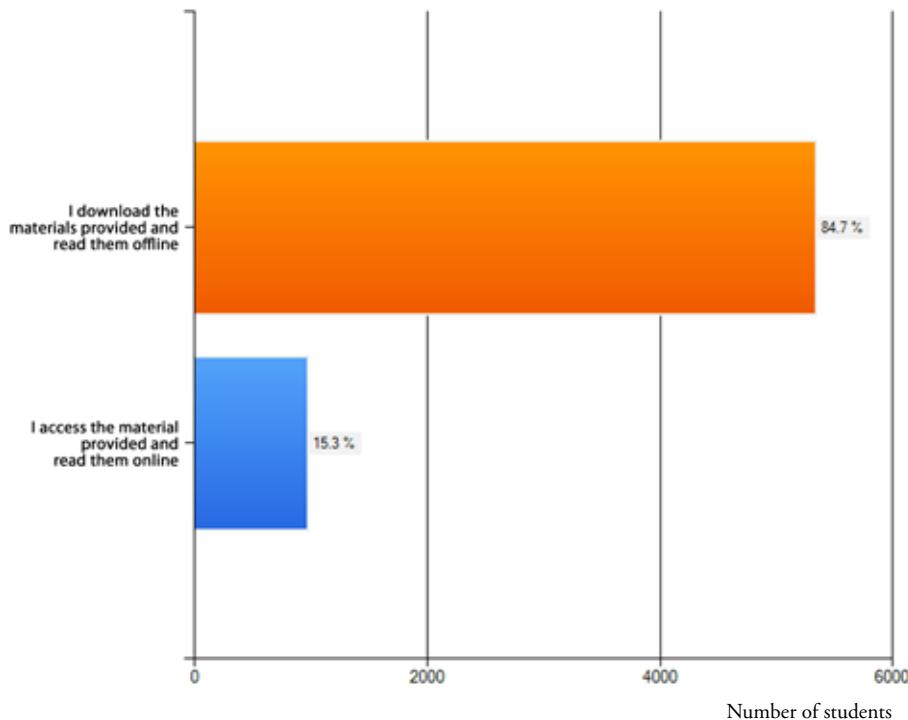


Figure 7.15: Methods commonly used by students

In terms of online assessments, Figure 7.16 shows that 40.3% of lecturers do not conduct assessments online, while 28.2% conduct 0–10% online, and 17.2% conduct 11–20% online. Only 14.3% lecturers conduct more than 20% online. Figure 7.17 shows that for most students (30.9%), only 11–20% of their courses include online assessments. For 26% of them, 0–10% of their course assessments are conducted online, while for another 26%, over 20% of their course assessments are conducted online.

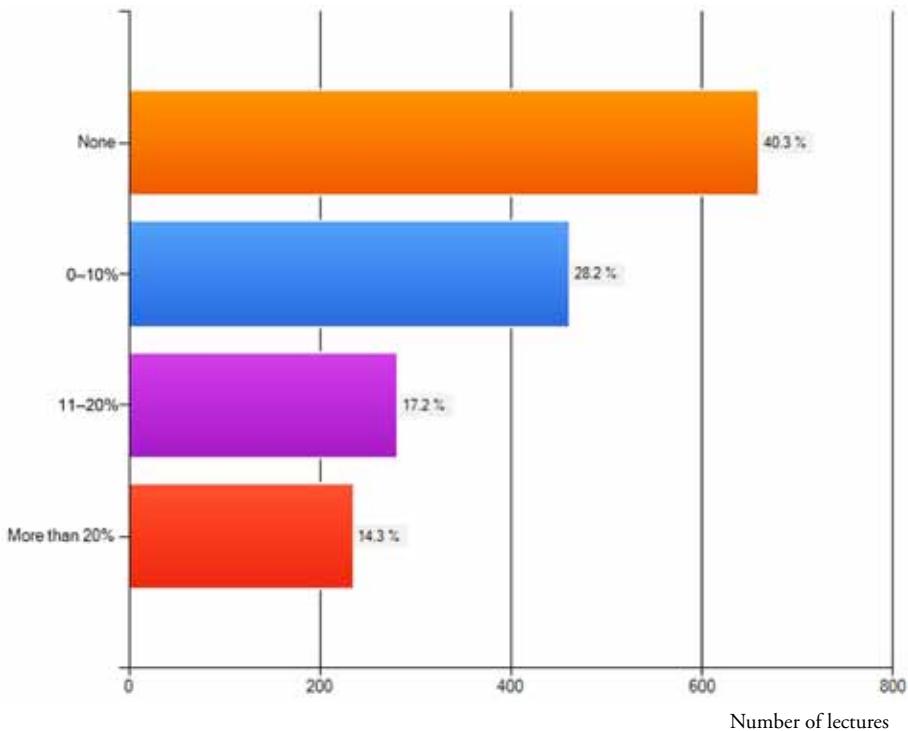


Figure 7.16: Percentage of online assessments conducted by lecturers

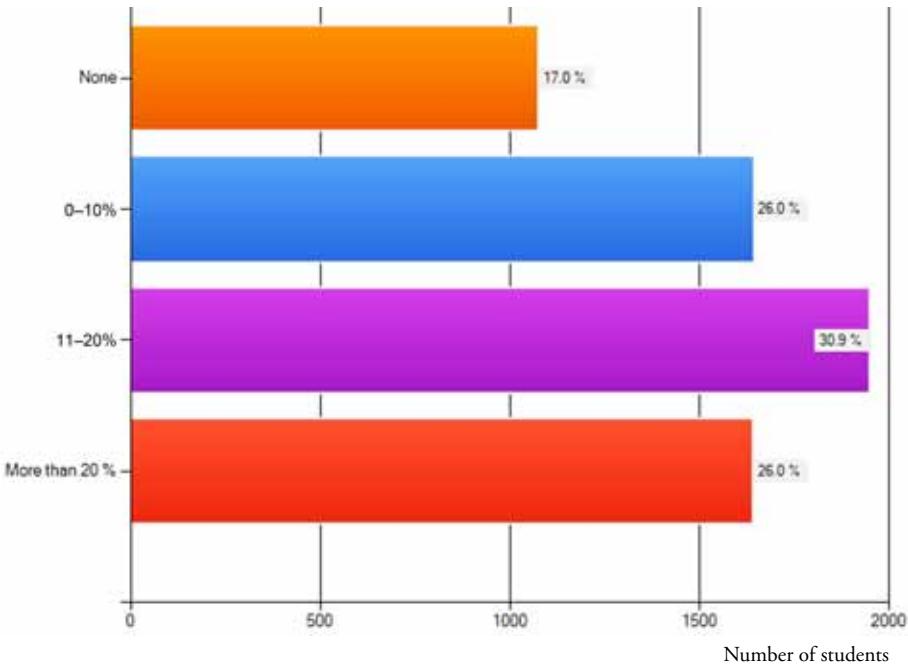


Figure 7.17: Percentage of course assessments taken online by students

As shown in Figure 7.18, the majority of lecturers (93.4%) believe that the integration of e-Learning in their courses have benefited the students, while 88.5% believe that the use of e-Learning has a positive impact on their students' performance (see Figure 7.19). Figure 7.20 and Figure 7.21 respectively show that about half of the number of lecturers (52.4%) are of the view that the integration of e-Learning in their institutions are at the moderate level, while more than half of the number of students (56.8%) believed the same.

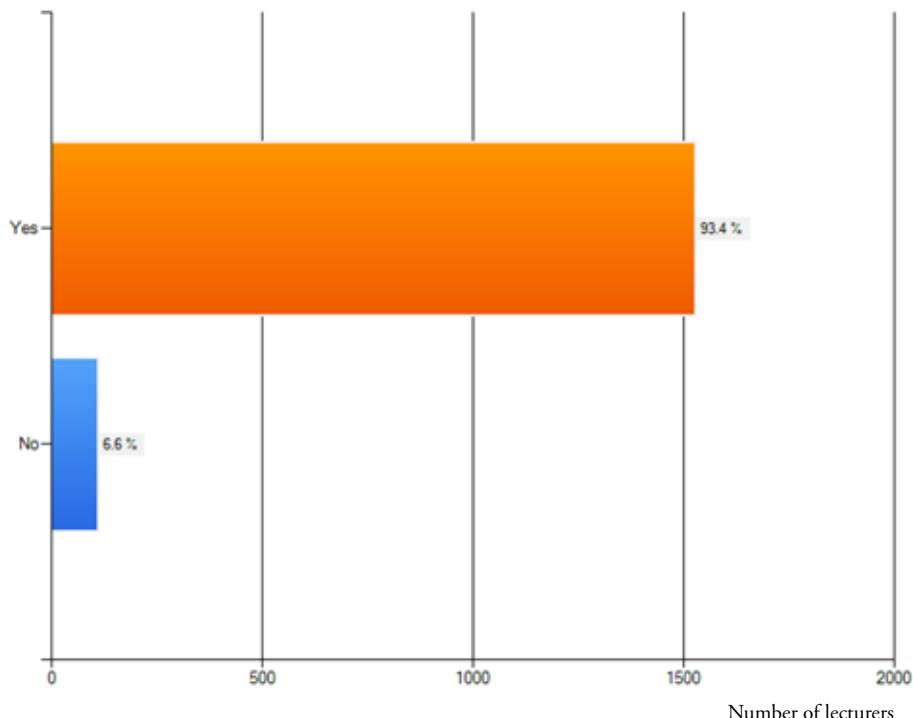


Figure 7.18: The extent to which integration has benefited students

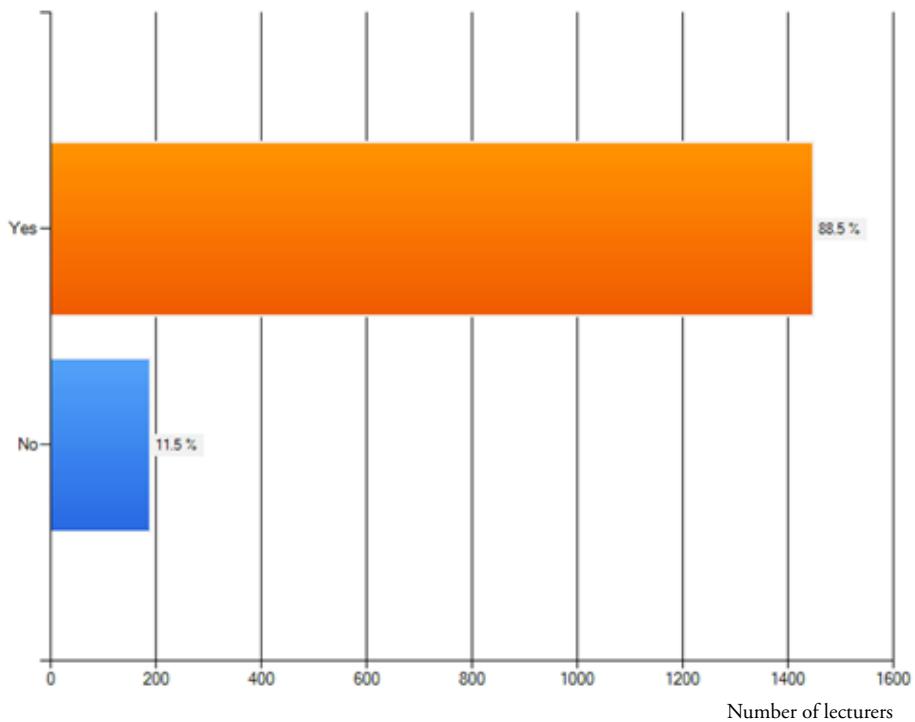


Figure 7.19: The extent to which integration has a positive impact on students' performance

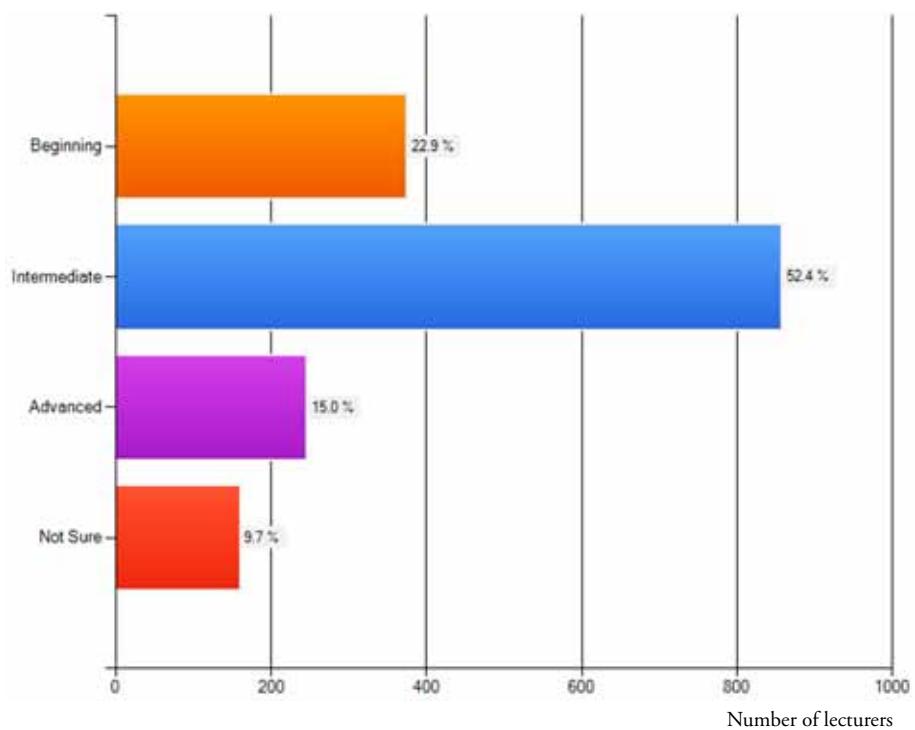


Figure 7.20: Lecturers' opinion on the levels of integration of e-Learning in their institutions

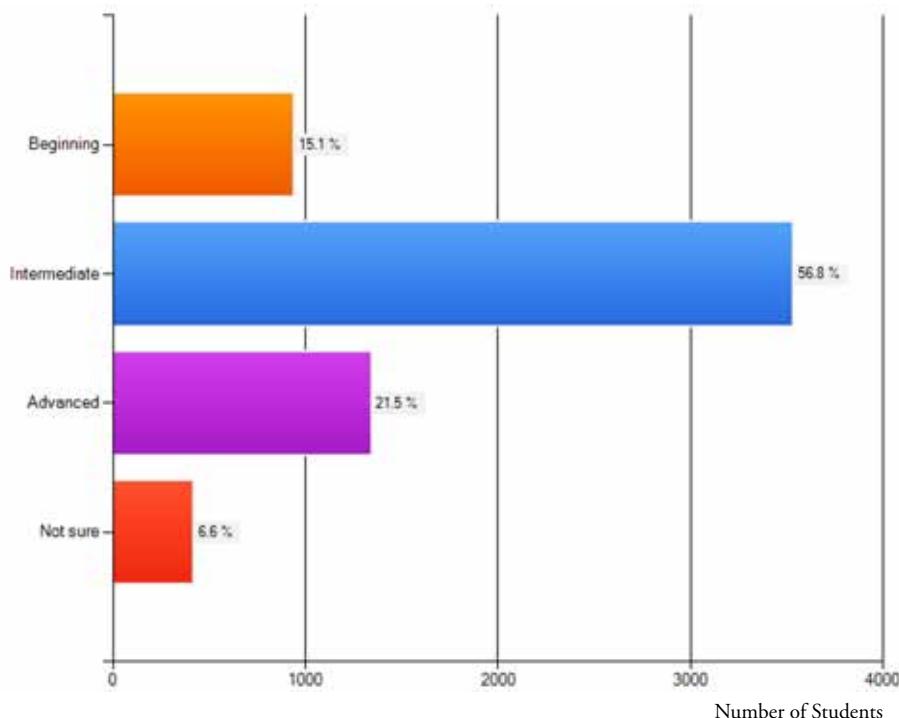


Figure 7.21: Students' opinion on the levels of integration of e-Learning in their institutions

Problems & Challenges Related to the Integration of e-Learning in Teaching & Learning

Data in Figure 7.22 shows that the two main challenges faced by lecturers in integrating e-Learning in their teaching and learning are balancing teaching and research (59.8%) and time constraints (54.9%). Technophobia (13%) was the least responsible factor among the challenges faced by lecturers in integrating e-Learning. For students, as shown in Figure 7.23, the challenges they face in the virtual environment are the lack of access (53.4%), lengthy response time from lecturers (42.8%), lack of content (32.7%), time consuming (32.4 %), lack of interesting content (31.3%), and uninteresting content (31.3%), and not like other applications (e.g Facebook) (28.1%). Only 294 students (4.7%) indicated that technophobia is one of the main problems that they faced.

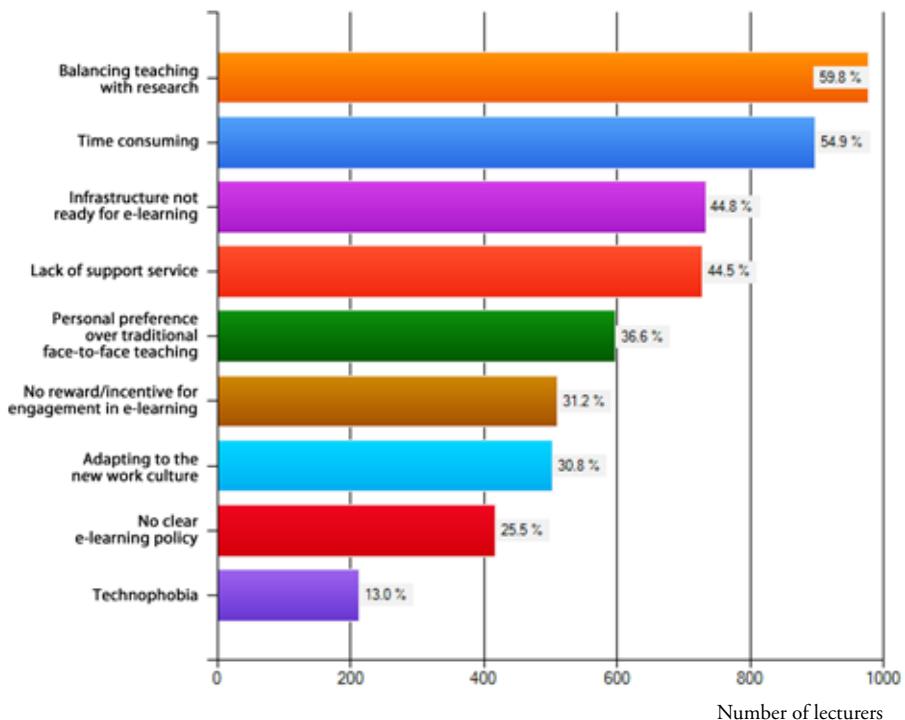


Figure 7.22: Main challenges faced by lecturers in integrating e-Learning

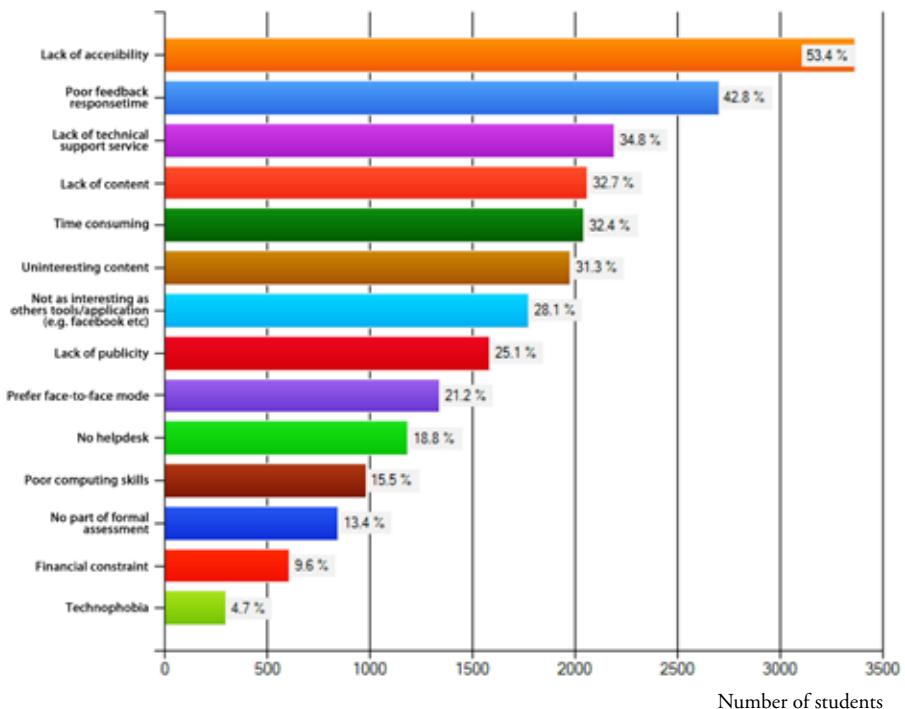


Figure 7.23: Main challenges faced by students in a virtual environment

Implication of Findings & Proposed Improvements

e-Learning is a broad concept and is often given different interpretations from one organisation to another. The findings from this study show that more than half of the HEIs surveyed offer more than 50% of their courses online. The findings also suggest that *blended learning* is the most popular mode practiced in HEIs.

From the students' perspectives, the percentage of online courses that they are taking is encouraging. On the other hand, most of the lecturers agree that there is an increase in e-Learning activities over the past two years. The findings also showed that most of the lecturers agree that the integration of e-Learning in their courses have benefited the students.

These findings imply that HEIs need to enhance and stimulate e-Learning activities in their respective institutions as the integration of e-Learning is a phenomenal trend in tackling the digital natives. MOHE is also recommended to open up more opportunities for HEIs to conduct further research to enhance e-Learning activities in line with the global technology by providing funds for potential research. For AKEPT, e-Learning courses should be conducted more regularly for the same purpose. Content development workshops should be conducted by each HEI. The findings of this study showed that each HEI has its own strategy in the development of e-Learning content. Thus, AKEPT is suggested to provide the budget for HEIs to conduct potential workshops at their respective institutions.

The data also showed that more than 70% of the students access online courses from their hostels and more than 90% are using laptops with wireless network facilities available at their respective campus. The main challenge faced by more than half of the students in a virtual environment is lack of access. These findings imply that HEIs need to enhance their digital infrastructure across all campuses. The increase in broadband facilities have to be taken seriously and ICT services should be systematically monitored.

In general, the overall findings of this study show that, in practice, the application of e-Learning in teaching and learning is accepted by lecturers and students of HEIs as an effective means of communication. Thus, the findings suggest that the integration of e-Learning should be the most important agenda in each HEI. All HEIs, MOHE, and AKEPT need to work together and in tandem to optimize the integration of e-Learning in each HEI.

Conclusion

The findings presented in this chapter have discussed the status, trends, and challenges of integrating e-Learning in teaching and learning according to 26 e-Learning administrators, 1,635 lecturers, and 6,301 students who participated in this study. e-Learning is a wide concept and is often given different interpretations from one organisation to another. However, the findings of this study proved that the integration of e-Learning in practice is accepted by all HEIs as an effective means of communication.

The sustainability of e-Learning in teaching and learning is in line with the government's aim to democratize education and to contribute to the formation of "Knowledge Workers or K-Workers" in Malaysia.

Chapter 8

Quality Assurance and e-Learning Future Plans

Mahamod Ismail
Mohamed Amin Embi
Norazah Mohd Nordin

Introduction

The progress of education in this country is clearly influenced by the increased use of ICT. In the context of education in HEIs, ICT is not only capable of automating management and administration tasks, but has great potential as a tool to enrich the teaching and learning environment through e-Learning. In this context, quality assurance is an important aspect in the implementation of any programme, especially at the tertiary level. However, often, quality assurance is not given due attention in the implementation of e-Learning. Thus, detailed studies on quality assurance of e-Learning in Malaysia need to be carried out. In addition, since e-Learning is a rapidly growing field, future planning in terms of the latest applications that Malaysian HEIs plan to use must be identified and discussed.

Methodology

Data on e-Learning quality assurance and e-Learning future plans of Malaysian HEIs were obtained from 26 e-Learning administrators who completed the Malaysian HEIs e-Learning Questionnaire (IT Manager), 1,635 lecturers who completed the Malaysian HEIs e-Learning Questionnaire (Instructor), and 6,301 students who completed the Malaysian HEIs e-Learning Questionnaire (Student). The analysis of these two aspects were based on six items from the Malaysian HEIs e-Learning Questionnaire (IT Manager), one item from the Malaysian HEIs e-Learning Questionnaire (Instructor) and one item from the Malaysian HEIs e-Learning Questionnaire (Student). Findings are discussed on the basis of status and implementation trend.

Findings

Status of Quality Assurance

From the aspect of quality assurance, as shown in Figure 8.1, only 46.2% HEIs had relevant guidelines on the quality of e-Learning, while 42.1% HEIs make e-Learning part of their respective *Continuous Quality Improvement* (CQI). The data (see Figure 8.2) also show that quality assurance for the HEIs involved in this study is typically managed by the Centre for Academic Development (or equivalent) or the Centre for Teaching and Learning respectively (see Figure 8.3).

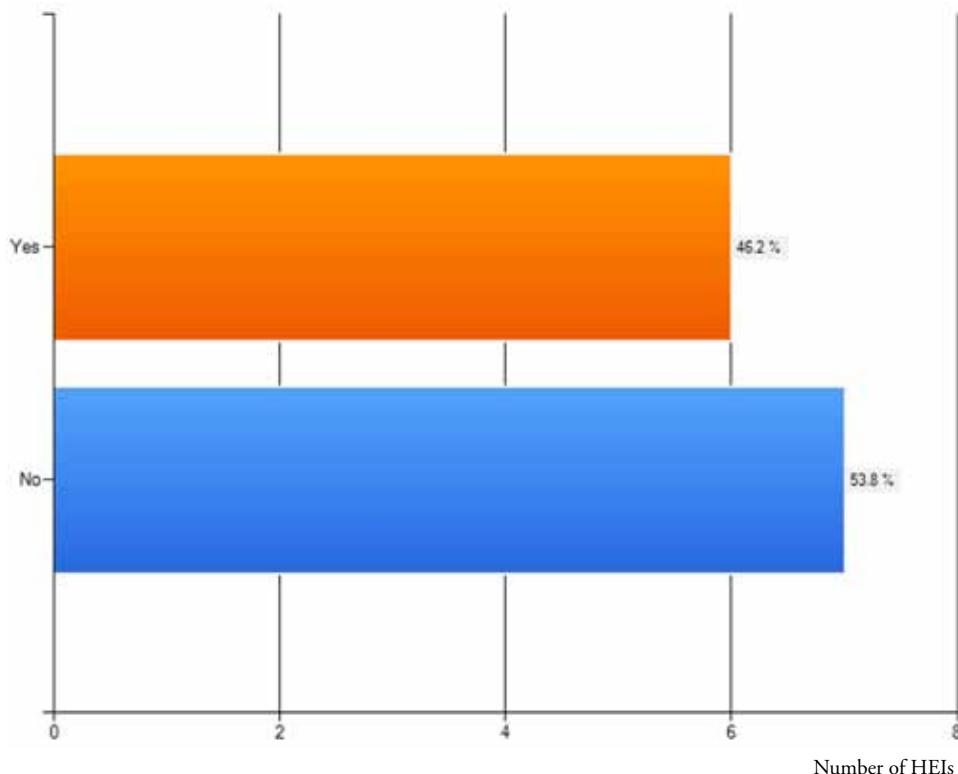


Figure 8.1: Number/Percentage of HEIs having quality assurance procedures related to e-Learning

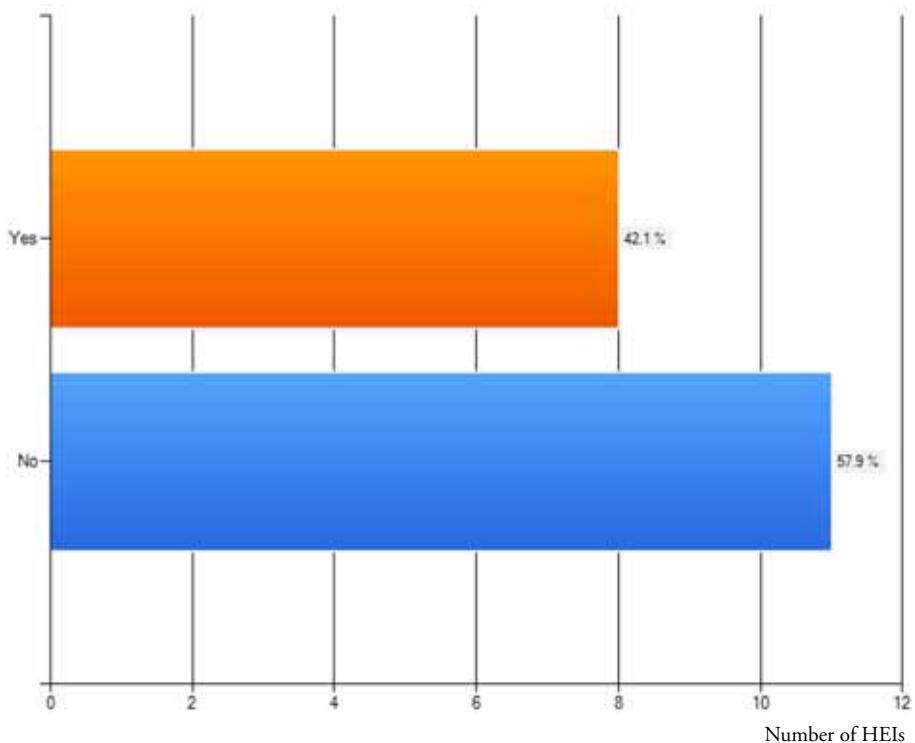


Figure 8.2: Number/Percentage of HEIs in which e-Learning is part of institutional CQI

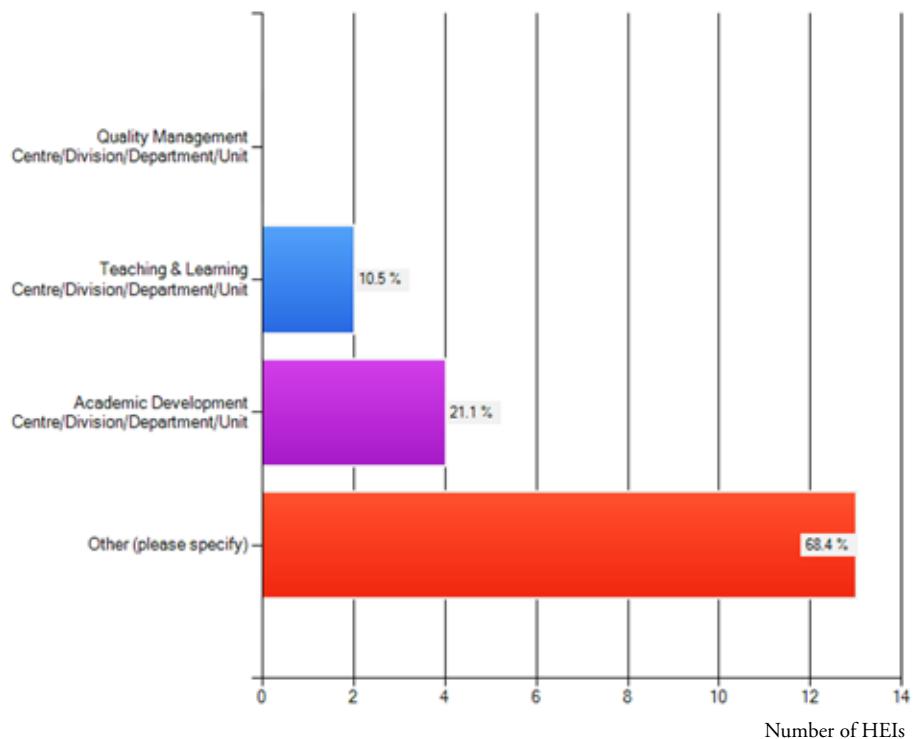


Figure 8.3: Department in charge of quality assurance related to e-Learning

e-Learning Effectiveness Study

As shown in Figure 8.4, only seven HEIs (26.9%) conducted periodic studies to monitor the impact and effectiveness of e-Learning on the delivery methods of their respective academic staff. In addition, only six HEIs (23.1%) conducted periodic studies to monitor the impact and effectiveness of e-Learning on student achievements in their respective institution (see Figure 8.5).

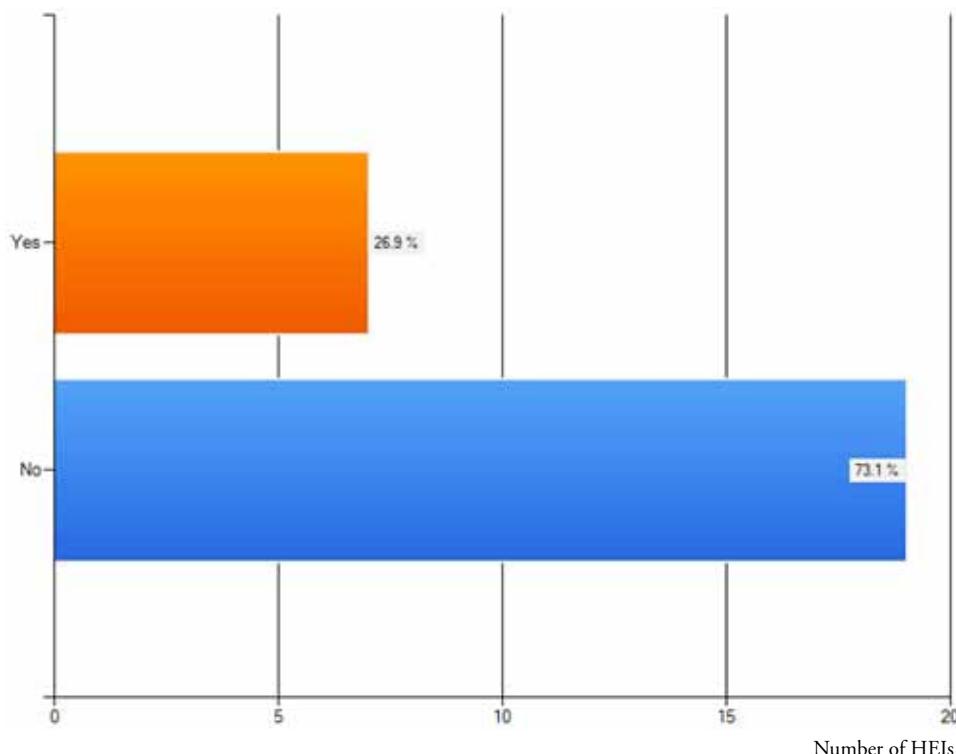


Figure 8.4: Number/Percentage of HEIs that monitors the impact of e-Learning on the delivery methods of academic staff

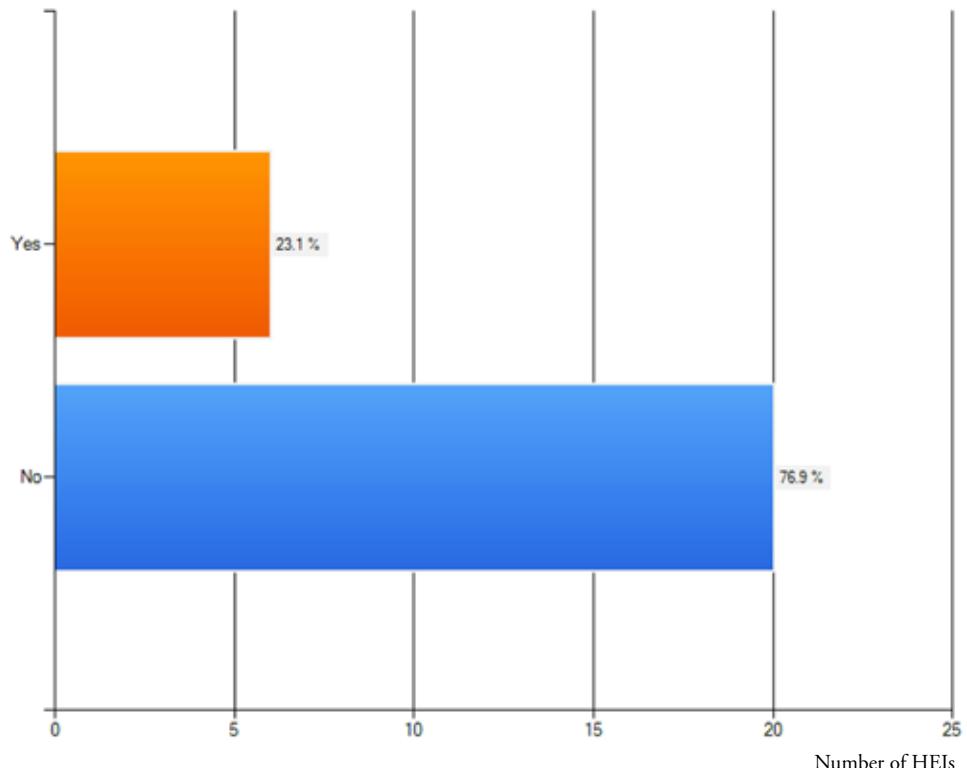


Figure 8.5: Number/Percentage of HEIs that monitors the impact of e-Learning on student achievement

e-Learning Future Plans

In terms of e-Learning future plans, Figure 8.6, Figure 8.7, and Figure 8.8 show the future e-Learning applications that will be adopted according to the perception of e-Learning administrators, lecturers, and students. e-Learning administrators believe that the applications that need to be provided according to priority are Mobile Learning (92.3%), Podcasting (61.5%), Educational Games (50%), and Simulation (42.3%). According to them, an Intelligent Tutoring System is not a priority application (see Figure 8.6). However, lecturers (67%) and students (76.8%) believe that their HEIs should give priority to Intelligent Tutoring Systems as compared to other applications. In addition, although most e-Learning administrators believe that Podcasting should be given priority, lecturers (23.4%) and students (19.4%) indicated that Podcasting should be given the lowest priority (see Figure 8.7 and Figure 8.8).

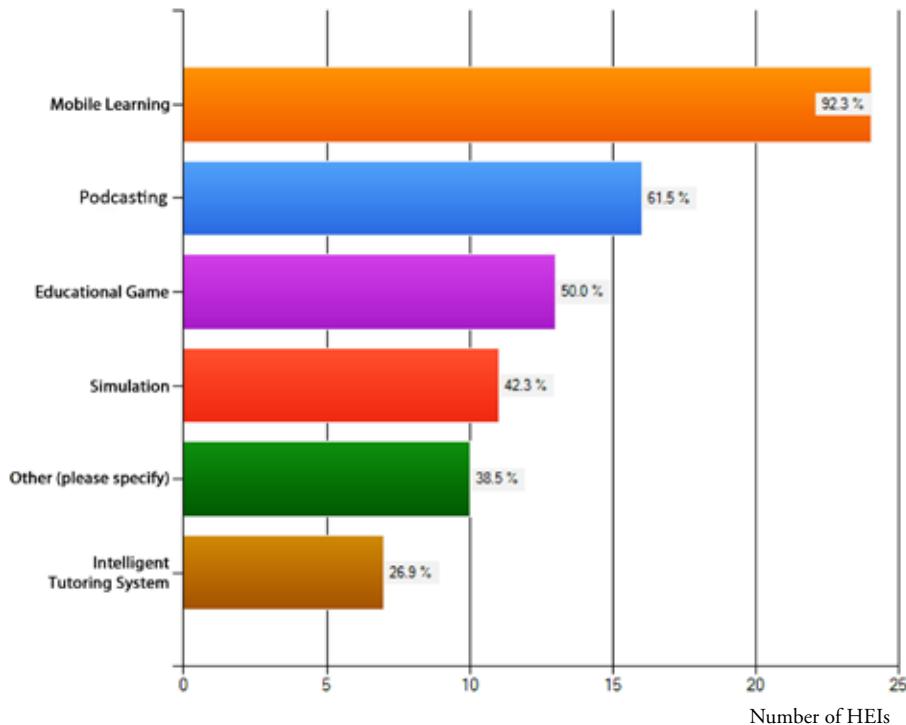


Figure 8.6: Future applications most used by e-Learning administrators

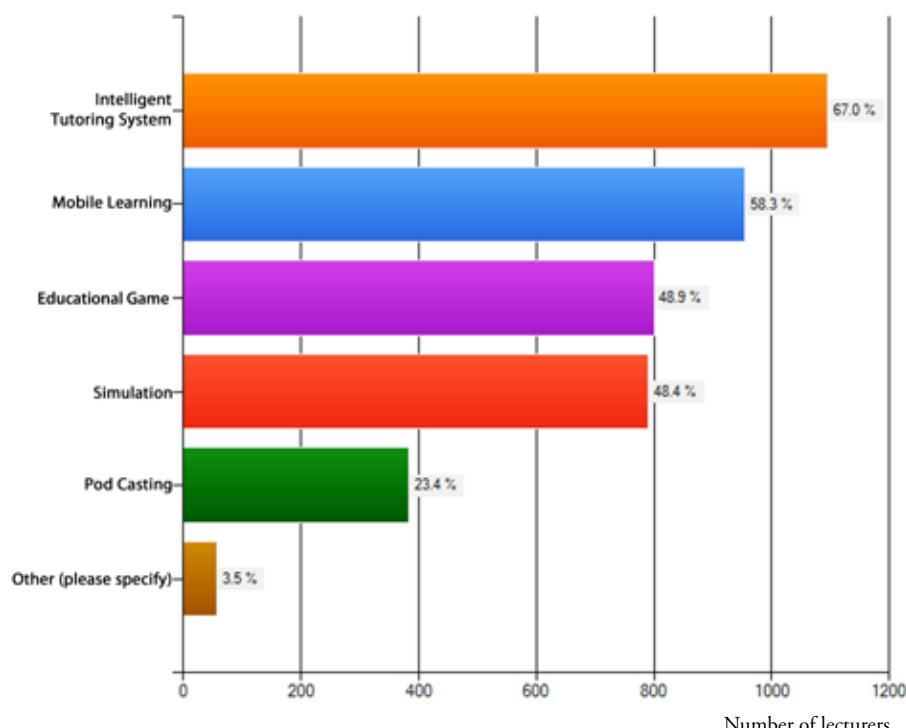


Figure 8.7: Future applications most liked by lecturers

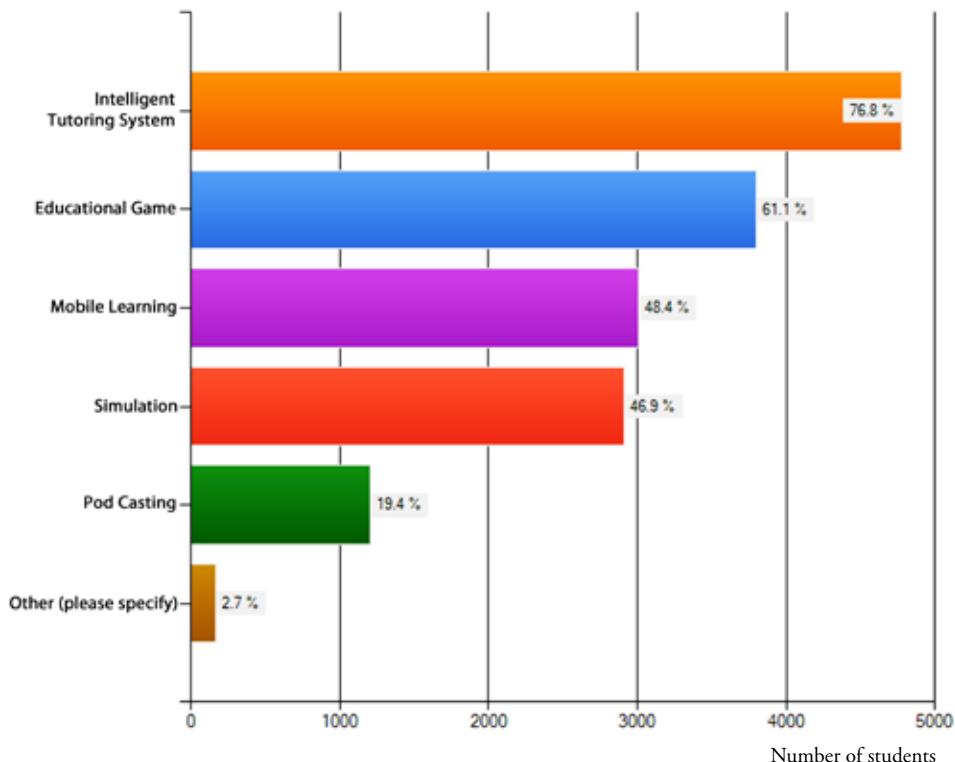


Figure 8.8: Future applications most liked by students

Implication of Findings & Proposed Improvements

Generally, the data showed that quality assurance is given less attention in the implementation of e-Learning in Malaysia. In this context, standard guidelines on e-Content materials developed jointly by CEMCA (Commonwealth of Educational Media Centre for Asia) and the Ministry of Higher Education should be distributed and used by all Malaysian HEIs to control the quality of e-Learning materials available at tertiary levels.

Secondly, each HEI should conduct studies related to the effectiveness of e-Learning implemented at their respective institutions to ensure that the use of e-Learning provides maximum impact on the teaching and learning process. At the national level, MOHE should seriously consider the setting up of an e-Learning centre of excellence in order to conduct and coordinate research on e-Learning, particularly in terms of the impact of e-Learning on student achievement.

Thirdly, in developing e-Learning future plans, HEIs should involve relevant stakeholders such as lecturers and students, in order to gain their buy-in. In this study, for example, students and lecturers are not so enthusiastic on the applications that HEIs plan to use. The results of this study imply that MOHE should establish a National Institute of e-Learning in order to enable Malaysian HEIs to compete globally with renowned HEIs well known in the area of virtual teaching and learning. The establishment of this centre is also expected to help determine the future direction of e-Learning, including the latest applications that are suitable for use in Malaysian HEIs.

Conclusion

e-Learning in HEIs is shown as an innovation that can improve the performance of virtual teaching and learning. Thus, quality assurance should be given serious attention in the management of HEIs. This chapter has successfully described the status of quality assurance and e-Learning future planning in Malaysian HEIs from the perspectives of 26 e-Learning administrators, 1,635 lecturers, and 6,301 students who formed the sample population in this study.

Chapter 9

Summary of Findings on the Status, Trends, & Challenges of e-Learning Implementation

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Hanafi Atan
Afendi Hamat

Introduction

This chapter will provide the key findings of this study related to the practice, effectiveness, and challenges of e-Learning in Malaysian HEIs. A total of 26 e-Learning administrators, 1,635 lecturers, and 6,301 students from 27 HEIs (including polytechnics) were involved as respondents. Data were obtained from the Malaysian HEIs e-Learning Questionnaire (IT Manager) which contains 74 items, the Malaysian HEIs e-Learning Questionnaire (Instructor) which contains 35 items, and the Malaysian HEIs e-Learning Questionnaire (Students), which contains 20 items.

The main aspects studied include: i) e-Learning policy, ii) e-Learning governance, iii) learning management system (LMS), iv) e-Learning training, v) e-Content development, vi) integration of e-Learning in teaching and learning, and vii) quality assurance and e-Learning future plans. Data was analysed from the aspects of a) status of e-Learning, b) trends of e-Learning implementation, and c) challenges of e-Learning implementation. The following section summarizes the main findings from each of the aspect reviewed in this study.

Key Findings of e-Learning Policies

From the analysis conducted on the responses of e-Learning administrators and lecturers involved in this study, there were 18 key findings related to the status, trends, effectiveness, and challenges of e-Learning policy in Malaysian HEIs as follows:

- i. A total of 16 HEIs or 38.5% have e-Learning policies. This means that the majority (61.5%) or 16 HEIs do not have e-Learning policies yet.

- ii. For the HEIs that have e-Learning policies, the parties involved in developing the policies are made up of the top management and representatives of faculties/centres/departments only. This shows that none of the HEIs involved the students and external stakeholders in the formulation of their respective e-Learning policies.
- iii. The e-Learning policies are commonly approved by the Senate (60%) or the top management (40%) of the respective institutions.
- iv. According to the e-Learning administrators who formed the sample population in this study, the various approaches used to disseminate e-Learning policies to the campus communities include formal training programmes (80%), university web sites (70%), circulars (60%), pamphlets (60%), and induction programmes (40%).
- v. Most of the HEIs (90%) that have e-Learning policies also have their own implementation plans.
- vi. Most of the HEIs (70%) that have e-Learning policies made the use of e-Learning (70%) compulsory for lecturers and students.
- vii. Less than half of the HEIs surveyed (40%) have implemented their respective e-Learning policies for more than 3 years or for between 1–3 years, while only two HEIs (20%) have implemented their e-Learning policies for less than a year.
- viii. The components least detailed in e-Learning policies as compared to other components are the incentives, awards, and quality assurance components.
- ix. For the majority (90%) of the HEIs, e-Learning policy is part of their respective strategic plans.
- x. For most of the HEIs (70%), e-Learning is part of their respective KPI.
- xi. Out of the ten HEIs with e-Learning policies, four have no clear e-Learning implementation plans.
- xii. According to e-Learning administrators, in terms of the level of awareness of the e-Learning policy among the academic staff of their respective institutions, six HEIs are at the level of 76–100%, one HEI is at 51–75%; three HEIs are at the level of 26–50% and four other HEIs are at the level of awareness between 0–25%.
- xiii. For the majority of the HEIs (12 out of 20) to date, their respective e-Learning implementation plans have achieved a success rate of 0 to 50%, while only eight HEIs have achieved a success rate of between 51% to 100%.
- xiv. In general, support from management, faculty/school/department, and students are at the level of 76–100%, while support from the lecturers is at the level of 25–50%. This shows that the support from the lecturers is less than that of other stakeholders.
- xv. 80% of the lecturer sample confirmed that there was an e-Learning policy at their respective institution.
- xvi. The majority (92.5%) of the lecturers are aware and know about the e-Learning policy in their respective HEIs.
- xvii. According to them, information about the policy was obtained mainly from institutional websites (58%), circulars (57.4%), and formal training programmes conducted by their respective HEIs.
- xviii. Only 5% of the lecturers stated that they did not comply with the e-Learning policy in their respective HEIs. A total of 30.6% complied fully, and 58.7% complied with a part of the policy, while 5.7% are not sure whether they complied or not.

Key Findings of e-Learning Governance

From the analysis done on the responses given by the respondents involved in this study, there were 11 key findings in relation to the status, trends, effectiveness, and challenges of e-Learning governance in Malaysian HEIs:

- i. Only five HEIs (19.2%) did not have a specific centre/department/unit to manage e-Learning in their respective institutions.
- ii. In general, e-Learning governance is put under the purview of the Information Technology Centre (61.5%) followed by the Academic Development Centre (38.5%) and the Center for Teaching and Learning (34.5%) of the respective institutions.
- iii. Only seven HEIs (26.9%) have an e-Learning Centre which serve as a formal governance structure for the planning and implementation of e-Learning. e-Learning governance in two HEIs is the responsibility of the faculties, while in one, it is the responsibility of the e-Learning committee.
- iv. In nearly half of the HEIs (42.5%) surveyed, the e-Learning coordinator is responsible for managing e-Learning, while in 23.1% of the HEIs, the Director of the Information Technology Centre bears the responsibility of managing e-Learning.
- v. A majority of the HEIs (80.8%) has an e-Learning committee.
- vi. Generally, only half of the HEIs (57.7%) in Malaysia provide an annual management budget specifically for e-Learning.
- vii. The main components of the budget were allocated for training and authoring software purchases (93.3%), followed by the acquisition of equipment and provision of physical infrastructure (66.7%). The benchmarking and the consultancy components were allocated the least amount of funds.
- viii. In terms of the effectiveness of the existing e-Learning governance, only half of the e-Learning administrators (50%) believe that their institutions have an effective governance structure.
- ix. In addition, only half of the e-Learning administrators (57.7%) are of the view that they have adequate facilities for the effective implementation of e-Learning in their respective institutions.
- x. Most of the e-Learning administrators (65.4%) believe that the representatives from the faculty/school/department have successfully played an effective role in enhancing the use of e-Learning in their respective institutions.
- xi. The main challenges related to the e-Learning governance is shortage of staff (84.5%) and lack of incentives provided by the HEIs to those responsible for implementing e-Learning (69.2%). Other challenges include the lack of a clear e-Learning policy (61.5%), lack of a clear e-Learning governance structure (50%), and no clear guidelines as to who is responsible for implementing e-Learning (42.3%). Only three HEIs (11.5%) felt that the main challenge is the lack of support from the top management of their respective institutions.

Key Findings of Learning Management Systems (LMS)

Data collected and analysed from the responses given by e-Learning administrators, lecturers, and students involved in this study yielded 25 key findings in relation to the status, trends, effectiveness, and challenges of implementing Learning Management Systems (LMS) in Malaysian HEIs.

- i. All (100%) HEIs had their own learning management system or LMS.
- ii. Half (57.7%) of the HEIs used *Open Source Platforms*, while 34.6% purchased commercial LMS, and 15.4% developed on their own.
- iii. A total of 12 HEIs are using Moodle, while 2 are using Claroline. In addition, 6 HEIs purchased LMS from local vendors, while 2 HEIs use Blackboard which is a commercial LMS from overseas.
- iv. Half of the HEIs (50%) have been using their LMS for more than three years, 30% have been using it for between one to three years, and 19.2% have been using it for less than a year.
- v. In terms of major components of the Learning Management System, all HEIs reported that their LMS have the usual applications found in a standard LMS. The most widely used applications are *Communications* (96.2%), *Course Delivery* (96.2%), *Productivity* (88.5%), *Content Development* (80.8%), and *Administration* (73.1%). Only a few HEIs (65.4%) have LMS with student involvement features such as Groupwork and Portfolio.
- vi. In terms of integration of the LMS with existing information systems in HEIs, only 65.4% are integrated with the Student Information System and 61.5% are integrated with the Staff Information Systems. Only four HEIs (15.4%) have integrated their LMS with the Library Information Systems and two HEIs (7.7%) integrated their LMS with the Financial Information System.
- vii. Almost three quarters (73.1%) of the LMS used in Malaysian HEIs are SCORM compliant.
- viii. Half (53.8%) of the HEIs have moved to a new LMS from a previous platform. This is because the new system is more cost effective (60%).
- ix. In terms of the effectiveness of the e-Learning platform at HEIs, most of the features such as *accessibility* (61.5%), *reliability* (57.7%), *user friendliness* (57.7%), *security* (57.7%), *flexibility* (53.8%), and *scalability* (53.8 %) are performing considerably well. Only integration of the LMS with other systems is at a moderate level (42.3%).
- x. Most of the lecturers and students were of the opinion that all the major features found in their LMS are working well.
- xi. Most of the lecturers (77.0%) are using the LMS provided by their respective institutions.
- xii. Most students (63.3%) have been given LMS training by their respective institutions.
- xiii. Other applications used by lecturers who do not use the LMS provided by their institutions include *content sharing* such as *Slideshare* (36.9%), followed by *social networking* such as *Facebook* (26.7%) and *photo/video sharing* such as *Youtube* (24.3%).
- xiv. Alternative applications used by lecturers who use the LMS provided by their institutions include *social networking* (45.7%), communications applications such as *Yahoo* (35.4%), and *content sharing* (32.8%).
- xv. According to students, the most widely used alternative applications used by their lecturers apart from the LMS are *content sharing* (45.3%), *photo/video sharing* (37%) and *social networking* (36.8%).
- xvi. In terms of the trends in using the LMS, the main components most widely used by lecturers are *course delivery* (65.3%), *content development* (58.8%), and *communications* (45.3%).
- xvii. In terms of frequency of accessing the LMS, most of the lecturers access the LMS once a week (30.8%), followed by those accesing it once daily (21.5%), and hose accesing it several times a day (18.5%). The number of lecturers who do not access the LMS at all is very small, about 133 people or 8.1%.

- xviii. The component in the LMS most frequently used by lecturers during a semester is *email* (34.6%), while components such as *course management* (38.3%), *content sharing* (33.8%), *course templates* (33.4%), and *assessment* (32.5%) are also frequently used.
- xix. Data also showed that the components in the LMS most frequently used by students are *searching within course* (40.1%), *assessment* (39.7%), and *course management* (39.1%).
- xx. The LMS components lecturers found to be the most beneficial are *email* (61.3%), *course management* (56.7%), *content sharing* (52.2%), and *assessment* (45%).
- xxi. The LMS components found to be the most beneficial to learning are, in descending order, *assessment* (55%), *email* (54.2%), *course management* (52.8%), and *content sharing* (36.6%).
- xxii. In terms of the usefulness of the components in the LMS, lecturers and students indicated that all of the LMS components are useful except for *chat* and *bookmarking* components.
- xxiii. Online activities students are most interested in are, in order of importance, *self-directed learning* (66.3%), *collaborative assignment* (57.9%), and *interactive quizzes* (57.8%) and *forum/chatting* (49.4%).
- xxiv. The main challenge faced by most HEIs (88.9%) in the utilization of the LMS by academic staff is that most academic staff are satisfied with existing teaching methods. Nearly two-thirds of the HEIs surveyed face the problem of academic staff lacking IT expertise (69.2%), too busy with research and publications (65.4%), burdened with heavy teaching loads (65.4%), and academic staff sceptical of e-Learning (64.5%). Only three HEIs (11.5%) indicated that the tendency for open-source platforms is a major challenge in the use of LMS. In addition, only two HEIs indicate that the existing LMS is not user friendly and lack of training on the LMS as major challenges.
- xxv. The main reasons given by lecturers who do not use the LMS provided by their respective institutions, include lack of training (37.4%), no time (36.1%), prefer traditional teaching methods (30.1%), lack of technical support (29.6%), lack of facilities (28.3%), and a burden to existing teaching loads (27.0%).

Key Findings of e-Learning Training

From the analysis conducted on responses received from e-Learning administrators and lecturers involved in this study, 21 key findings can be concluded in relation to the status, trends, effectiveness, and challenges of e-Learning training in Malaysian HEIs:

- i. All HEIs (100%) conduct e-Learning training for their academic staff in their respective institutions.
- ii. Most of the HEIs (69.2% or 18 HEIs) conduct training for support staff.
- iii. Only 50% HEIs conduct e-Learning training for students.
- iv. Normally, training conducted focus on providing staff with the necessary skills to use the applications found in the LMS (96.2%) and introduction to e-Learning (84.6%). Slightly more than half of the HEIs involved in this study conduct training on e-Learning Pedagogy (57.7%) and e-Content development (53.8%), while only one-third (34.6%) of the HEIs provide exposure to Web 2.0 applications.
- v. For most HEIs (84.6%), e-Learning training is part of the academic staff training and development programmes conducted in the respective institutions.

- vi. A total of eleven HEIs conduct e-Learning training as much as 1–3 times a year (42.3%), nine HEIs conduct training more than 6 times a year (34.9%), while six HEIs conduct training 4–6 times a year (23.1%).
- vii. The majority of HEIs (73.1%) conduct one-day training, while only a small proportion (26.9%) conduct training for sessions lasting more than one day.
- viii. The main mode of training is face-to-face (92.3%) followed by the *blended* method (42.3%) and *on-demand* mode (34.6%). The percentage of *fully online* (11.5%) and *CD-based* (7.7%) training is very small.
- ix. Only six HEIs (23.1%) make e-Learning training compulsory for academic staff members, while seven HEIs (26.7%) require new staff to attend e-Learning training. Half of the HEIs surveyed conduct e-Learning training on a voluntary basis.
- x. Generally, e-Learning training is conducted by internal trainers of the respective institutions (100%), although there are some institutions that invite outside consultants (34.6%) to conduct some of the e-Learning training programmes. None of the HEIs used the services of foreign consultants in their e-Learning training programmes.
- xi. Typically, the internal trainers had attended e-Learning-related TOT training (73.1%), or attended workshops/seminars on e-Learning at the national or international level (42.3%) or have Ph.D qualifications in the field of e-Learning. There are also trainers (23.1%) who acquired their e-Learning-related skills through self-study.
- xii. In terms of e-Learning training for academic staff, more than 50% have attended training programmes. In five HEIs, only about 11–35% of the staff received training on e-Learning; in four HEIs, only 0–10%; while in another four HEIs, almost 36–50% of academic staff have been trained in e-Learning.
- xiii. Only 57.7% or 15 HEIs conduct follow-up programmes after the training.
- xiv. Only 30.8% or eight HEIs make attendance in e-Learning training as part of the academic staff annual performance appraisal.
- xv. Nearly two-thirds of lecturers (65.7%) have attended e-Learning training programmes over the past two years in their respective HEIs.
- xvi. Most of the lecturers (77.3%) indicated that training was effective or very effective.
- xvii. The main modes of training preferred by lecturers are face-to-face (45.1%), followed by the *blended* method (26.5%). Percentage of those interested in *fully online* (13%), *CD-based* (7.6%), and *on demand* (6.3%) training are very small.
- xviii. Training topics of interest to lecturers are online assessment (67.7%), e-Content development (56.5%), content management (55.3%), and e-Learning pedagogy (38.3%).
- xix. In terms of applying the knowledge and skills learned during training, most of the lecturers (72.6%) indicated that they have successfully applied it in their teaching. A small proportion (14.6%) of lecturers believed that they managed to apply all that they have learned, while 12.8% indicated that they could not apply what they have learned during e-Learning training.
- xx. In terms of e-Learning training, the two key challenges faced by most HEIs are the lack of motivation among the teaching staff (69.2%) and the lack of attendance during training (53.8%). Other challenges include lack of expert training facilitators (38.5%), lack of training modules (30.8%), and unsuitable training schedule (30.8%). The data also shows that the lack of budget (26.9%) and lack of facilities (26.9%) are not major problems in the implementation of e-Learning training in Malaysian HEIs.
- xi. Generally, most of the lecturers do not attend e-Learning training is because the training schedule usually clashes with their teaching activities during a semester.

Key Findings of e-Content Development

From the analysis on the responses obtained from e-Learning administrators and lecturers involved in this study, there are 15 key findings associated with the status, trends, effectiveness, and challenges of e-Content development in Malaysian HEIs:

- i. Half (50%) of the HEIs surveyed have a dedicated centre/department/unit to manage e-Content development.
- ii. Generally, the main strategy (92.3%) used by most Malaysian HEIs is for these dedicated units to collaborate with the lecturers who are subject matter experts.
- iii. The main applications used for e-Content development are *Flash* (92.3%), followed by *Articulate* (46.3%), *Adobe Captivate* (38.3%), *Camtasia Studio* (30.8%), *Lecture Maker* (15.42%), and *Interactive Raptivity Builder* (15.4%).
- iv. Those who were included in the development of e-Content were lecturers or the content experts (2.3%), graphic designers (84.6%), and also the multimedia developers (84.6%).
- v. Major support provided by Malaysian HEIs to lecturers who wish to develop e-Content include advice (84.6%), support in the form of equipment/authoring software (76.9%), and training related to the development of e-Content (69.2%). So far, only one (7.7%) Malaysian HEI provides e-Content development grants to academic staff.
- vi. Out of the 13 HEIs who have dedicated centres to manage e-Content development, only six (46.2%) provide incentives for lecturers who develop their own e-Learning content.
- vii. Out of the six, four HEIs provide incentives in the form of awards, three HEIs in the form of honorarium, and two HEIs in the form of reduced teaching load.
- viii. In general, the materials available online can be accessed easily in most HEIs (69.2%), while in six HEIs (23.1%), it can be accessed very easily.
- ix. In terms of *compatibility*, 69.2% are *compatible*; 23.1% are *very compatible*, while 7.7% are *moderately compatible*.
- x. In terms of interactivity of the materials available online, only 3.8% are *very interactive*, 34.6% are *interactive*, 50% are *moderately interactive*, and 11.5% are *not interactive*.
- xi. Only 17.1% of lecturers surveyed felt that they are not competent enough to develop e-Content. Half of them (50.4%) felt that they are moderately competent, 27.8% felt that they are competent, and 4.6% felt that they are *very competent*.
- xii. Most of the lecturers surveyed (88%) believe that they should be involved in the development of e-Content.
- xiii. The main support needed by lecturers involved in e-Content development are technical support (77.3%), e-Content development software (72.1%), e-Content development grants (57.4%), and recording studio facility.
- xiv. In terms of e-Content development, five major challenges faced by most HEIs are lack of motivation among the academic staff (65.4%), lack of specialists (53.80%), lack of a dedicated team to develop e-Content (53.8%), lack of commitment among academic staff (46.2%), and lack of funding/budget (46.2%). Support from top management (15.4%) is not the main challenge faced by HEIs on the development of e-Content.
- xv. Copyright issue is also a problem faced by the majority (80.8%) of Malaysian HEIs in the development of e-Content.

Key Findings of Integration of e-Learning in Teaching & Learning

The results of the analysis carried out on the response of e-Learning administrators, lecturers, and students involved in this study yielded 20 key findings related to the status, trends, effectiveness, and challenges of integrating e-Learning in teaching and learning in Malaysian HEIs:

- i. In general, 42.3% or 11 HEIs are offering more than 50% of their courses online. A total of 15.4% or four HEIs offer 0–10% online courses, 11.5% or three HEIs offer 11–20% online courses; 11.5 % or three HEIs offer 21–30% online courses, 11.5% or three HEIs offer 31–40% online courses, while 7.7% or two HEIs offer 41–50% courses online.
- ii. The most popular e-Learning mode among the HEIs is the supplementary mode followed by the blended mode.
- iii. The percentage of courses offered through the blended mode by lecturers are between 1–80%.
- iv. The percentage of online courses taken by students is 81–100%.
- v. Most of the lecturers (73.5%) believed that there is an increase in e-Learning activities in the past two years.
- vi. Most students access their online courses once a week (37.7%), followed by those who access it once daily (29.6%), and those who access it several times a day (17.6%). The number of students who have not accessed their online courses is very small, i.e. 135 or 2.1%.
- vii. Most students (71.4%) access their online courses from the hostel, followed by those who access it the computer laboratory (50.2%) and those who access it from home (46.9%).
- viii. Most students use their own laptops to access online courses (94.2%), using the wifi network available at their respective campuses (63.7%).
- ix. Only 13.8% lecturers provide more than 80% online learning materials. Most of the lecturers (79.1%) provide between 10% to 80% online learning materials.
- x. The main file formats provided by lecturers and accessed by students are common files such as pdf, ppt, doc, and xls files (96.8%). Only a few multimedia files are available (21.3%).
- xi. Most lecturers (50.1%) prefer to upload materials on a weekly basis before classes begin.
- xii. This seems to be the most preferred way by most students (44.6%).
- xiii. However, most students (84.7%) prefer to read the materials offline rather than online.
- xiv. In terms of online assessments, 40.3% of the lecturers surveyed do not conduct online assessments, while 28.2% conduct 0–10% online assessments, and 17.2% conduct 11–20% online assessments. Only 14.3% of the lecturers surveyed conduct more than 20% online assessments.
- xv. For most students (30.9%), only 11–20% of their course assessments are conducted online. For 26% of them, 0–10% of their course assessments are conducted online and for another 26%, over 20% of their course assessments are conducted online.
- xvi. Most of the lecturers (93.4%) surveyed believe that the integration of e-Learning in their courses have been beneficial to students.
- xvii. Most of the lecturers (88.5%) surveyed also believe that the use of e-Learning has a positive impact on the performance of their students.
- xviii. Half of the lecturers (52.4%) surveyed are of the view that the integration of e-Learning in their institution is still at the middle stage, and slightly more than half of the students (56.8%) surveyed believed that the integration of e-Learning in their respective institutions are at the middle stage.

- xix. Two major challenges faced by lecturers to integrate e-Learning in their teaching and learning are trying to balance between teaching and research (59.8%) and time constraints (54.9%). Technophobia (13%) was the least responsible challenge among the challenges faced by lecturers in order to integrate e-Learning.
- xx. For students, the challenges they face in the virtual environment are lack of access (53.4%), feedback from lecturers taking too long (42.8%), lack of content (32.7%), takes too long (32.4%), lack of interesting content (31.3 %), and uninteresting content as compared to applications such as Facebook. Only 294 students (4.7%) felt that technophobia is the main problem.

Key Findings of Quality Assurance and e-Learning Future Plans

Finally, from the analysis conducted on the responses of e-Learning administrators, lecturers, and students involved in this study, there are seven key findings related to the status, trends, effectiveness, and challenges of quality assurance and e-Learning future plans of Malaysian HEIs:

- i. Only 46.2% HEIs have guidelines on e-Learning quality.
- ii. Only 42.1% HEIs make e-Learning part of their respective *Continuous Quality Improvement* (CQI) process.
- iii. The governance of quality assurance in the institutions involved are usually controlled by the Centre for Academic Development (or equivalent) or the Center for Teaching and Learning.
- iv. Only seven HEIs (26.9%) carry out periodic monitoring of the impact or the effectiveness of e-Learning on the delivery methods of academic staff.
- v. Only six HEIs (23.1%) carry out periodic monitoring of the impact or the effectiveness of e-Learning on students' achievements.
- vi. In terms of e-Learning future plans, e-Learning administrators believe that the applications that should be provided according to priority are *Mobile Learning* (92.3%), *podcasting* (61.5%), *Educational Games* (50%), and *Simulation* (42.3%). According to them, the *Intelligent Tutoring System* is not an application that needs to be prioritised.
- vii. However, lecturers (67%) and students (76.8%) are of the view that HEIs should give priority to *Intelligent Tutoring Systems* as compared to other applications. In addition, lecturers (23.4%) and students (19.4%) place *podcasting* applications as the lowest in terms of priority.

Conclusion

This chapter has listed down 117 key findings on the basis of the analysis made on the views of 26 e-Learning administrators, 1,635 lecturers, and 6,301 students of Malaysian HEIs. Chapter 10 will discuss the recommendations and related policy implications of the findings presented in this chapter.

Chapter 10

Proposed Improvements & Policy Implications

Zaidan Abdul Wahab
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Introduction

This final chapter seeks to highlight some policy implications and recommendations for improvement that can be implemented at the levels of HEIs, MOHE, and AKEPT based on the key findings of this study involving 26 e-Learning administrators, 1,635 lecturers, and 6,301 students from 27 Malaysian HEIs. The recommendations are presented on the basis of seven major aspects which were the focus of this study, namely, (i) policy, (ii) governance, (iii) learning management systems, (iv) training, (v) e-Content development, (vi) integration in teaching and learning, and (vii) quality assurance and e-Learning future plans.

Proposed Improvements and Policy Implications of e-Learning Policy

- i. MOHE should provide a mechanism, to ensure that all HEIs that presently do not have a policy, to formulate their e-Learning policies and implement it.
- ii. The role of MOHE is essential in providing a complete set of guidelines on the formulation of a comprehensive policy that involves all *stakeholders* to be adopted by HEIs that have yet to formulate their policies.
- iii. MOHE should coordinate the development of e-Learning policies for those HEIs that are yet to develop their own policies and make the implementation of e-Learning a benchmark for the success of an HEI.
- iv. The establishment of a National Institute of e-Learning under the auspices of MOHE is the best move in providing guidelines for the formulation of e-Learning policies and to coordinate and monitor its implementation.

Proposed Improvements and Policy Implications of e-Learning Governance

- i. For a sound governance structure that has clear roles and responsibilities defined in accordance with the appropriate governance hierarchy, MOHE should implement a policy that all HEIs using e-Learning should establish their own e-Learning governance structure.
- ii. Ongoing training for new or existing staff should continuously be monitored, whether conducted by the HEIs themselves or those provided by AKEPT.
- iii. AKEPT should be sensitive to the training needs of HEIs and should provide relevant training programmes continuously. This will enable the staff of HEIs to be exposed to the e-Learning governance and the latest best practices in e-Learning technology.
- iv. MOHE, AKEPT, and each HEI are suggested to prioritize the e-Learning budget to ensure that all HEIs in Malaysia can compete at the global level.

Proposed Improvements and Policy Implications of Learning Management Systems

- i. Each HEI should reflect on the sustainability of their systems including the LMS because teaching and learning is a *core business* for any institution of higher learning.
- ii. e-Learning in Malaysian HEIs, as supported by the LMS, is still focused on the mechanical aspects of learning, such as content delivery and assessment. The challenge that must be addressed as the next step is to make existing systems to drive and support the more important aspects such as creative learning and knowledge management.
- iii. MOHE can play a role in coordinating the development, enhancement, and management of resources with respect to the LMS for use in HEIs in Malaysia. This will enable more effective centralised resources for use by Malaysian HEIs.
- iv. AKEPT can play a role by developing standards and policies related to e-Learning training conducted by HEIs for e-Learning. Apart from standards and policies, AKEPT should also be prepared to provide support in the form of expertise and resources to those that need it.
- v. The establishment of a National Institute of e-Learning can help monitor, advise, and provide assistance, particularly in coordinating resources and enhancing the existing LMS platforms.

Proposed Improvements and Policy Implications of e-Learning Training

- i. The management team of HEIs should be exposed to new technologies such as Web 2.0, Web 3.0, Web 4.0, and mobile technologies, as well as upgrading the existing LMS according to the latest learning technologies.
- ii. The training schedule implemented by each HEI must be flexible to ensure that more staff can be trained, and at the same time, the training does not affect their teaching duties.
- iii. The management team of HEIs is encouraged to give recognition or incentives to motivate staff to continue to integrate the latest technologies in e-Learning. In particular, staff who are qualified to be in-house e-Learning trainers should be awarded certificates, diplomas, or degrees in accordance with their expertise.
- iv. Specialized training on e-Learning pedagogy should be increased because the e-Learning pedagogy aspect is an important training component in ensuring the success and effectiveness of e-Learning in HEIs.

- v. MOHE should have a policy for e-Learning to guide the coordination of training in all HEIs. With this policy, aspects of training will be better designed to take into account the short, medium, and long term needs and demands.
- vi. More structured training programmes, an annual training budget, support centres, human capital development, incentives and motivation, continuous infrastructure improvements, and a strong integration with the curriculum should be enhanced from time to time in HEIs.

Proposed Improvements and Policy Implications of e-Content Development

- i. For those HEIs that have a dedicated centre for the development of e-Content, a clear policy, especially in terms of incentives, needs to be formulated since the establishment of these centres involve high costs, particularly in terms of equipment, software, and human resources.
- ii. Lecturers wished that HEIs would provide technical support, including training, in order to facilitate the development of e-Content. Thus, incentives should be provided, such as giving awards or honorarium to the lecturers who have developed the best e-Content.
- iii. Since most HEIs offer common university courses, the e-Content for these courses can be developed jointly by a centre under the Ministry of Higher Education. This is a more efficient use of resources, time, money, and manpower, while maintaining an acceptable level of quality. This is in line with the efforts of several leading universities in the world that provide '*open courseware*' which can be accessed freely by anyone.
- iv. A clear policy about the copyright issue at the ministry level should be formulated as lecturers are reluctant to develop or share e-Content, especially if their efforts are not recognised or compensated accordingly.

Proposed Improvements and Policy Implications of e-Learning Integration in Teaching & Learning

- i. Each HEI should enhance and stimulate e-Learning activities in their respective institutions as the integration of e-Learning is an inevitable trend for the digital generation.
- ii. MOHE is recommended to offer more opportunities for HEIs to continue to conduct research to enhance e-Learning activities in line with global technologies by providing funds for potential research.
- iii. As for AKEPT, e-Learning training should be intensified for the same purpose. AKEPT should also provide budget to fund potential workshops at HEIs.
- iv. Each HEI should strengthen its digital infrastructure throughout the campus. The enhancement of broadband facilities should be considered seriously, and ICT services should be systematically monitored.

Proposed Improvements and Policy Implications of Quality Assurance & e-Learning Future Planning

- i. The guidelines on e-Content standards that were developed collaboratively by CEMCA (Commonwealth of Educational Media Centre for Asia) and MOHE should be distributed and followed by all Malaysian HEIs in order to control the quality of e-Learning materials available at the tertiary level.

- ii. Each HEI should conduct research to study the effectiveness of e-Learning implemented at its institution to ensure that e-Learning has a maximum impact on the teaching and learning process.
- iii. MOHE should establish the National Institute of e-Learning, a centre of excellence for e-Learning, that can conduct and coordinate research on e-Learning, particularly in terms of the impact of e-Learning on student achievement.
- iv. The establishment of the National Institute of e-Learning can help to determine the direction of e-Learning, including latest applications that are suitable and versatile to be used in higher education.

Conclusion

This chapter has presented the proposed improvements and policy implications that can be implemented by HEIs, MOHE, and AKEPT in order to empower the e-Learning agenda at Malaysian HEIs.

Appendices

Malaysian IHL e-Learning Questionnaire (eLearning Admin) (Appendix 1)

Please provide your responses to all the questions.

*** 1. Is there a policy on e-learning at your institution?**

- Yes
 No

If yes to Q1

*** 2. If Yes to Question 1, who are the stakeholders involved in developing the e-learning policy?**

- Top management External stakeholders (e.g. Alumni, employers)
 Faculty/School/Department representatives Students
 Other (please specify)

*** 3. If Yes to Question 1, who approved the e-learning policy at your institution?**

- Senate/Council
 Top management
 Other (please specify)

*** 4. If Yes to Question 1, how is the e-learning policy disseminated to the academic staff/students at your institution? (You may choose more than one answer if applicable)**

- Institution's website
 Written circular/memo from management
 Booklet/Guidebook
 Induction programmes
 Formal development training programmes
 Other (please specify)

Malaysian IHL e-Learning Questionnaire (eLearning Admin) (Appendix 1)

*** 5. If Yes to Question 1, is there a structured implementation plan of the e-learning policy at your institution?**

- Yes
- No

*** 6. If Yes to Question 1, does your institution make e-learning compulsory for lecturers/students?**

- Yes
- No

*** 7. If Yes to Question 1, how long has the e-learning policy been implemented at your institution?**

- Less than a year
- 1 – 3 years
- More than 3 years

*** 8. If Yes to Question 1, which of the following components are included in the e-learning policy? (You may choose more than one answer if applicable)**

- | | |
|---|---|
| <input type="checkbox"/> Role of the Top Management
<input type="checkbox"/> Role of the IT Division/Centre/Department/Unit
<input type="checkbox"/> Role of the Teaching & Learning Division/Centre/Department/Unit
<input type="checkbox"/> Role of the Faculty/School/Department
<input type="checkbox"/> Role of Lecturers/Tutors
<input type="checkbox"/> Role of Students
<input type="checkbox"/> Other (please specify) | <input type="checkbox"/> Institution's e-learning implementation plan
<input type="checkbox"/> Copyright Issues
<input type="checkbox"/> Development of e-Content
<input type="checkbox"/> Training on e-learning
<input type="checkbox"/> Rewards/Incentives
<input type="checkbox"/> Quality Assurance |
|---|---|

*** 9. If Yes to Question 1, is the e-learning policy part of your institution's strategic planning?**

- Yes
- No

*** 10. If Yes to Question 1, is the e-learning policy part of your institution's Key Performance Indicators (KPIs)?**

- Yes
- No

Malaysian IHL e-Learning Questionnaire (eLearning Admin) (Appendix 1)

*** 11. If Yes to Question 1, is the policy clear in terms of the e-learning implementation plan employed at your institution?**

- Yes
- No

If no to Q1

*** 12. Is there a centre/division/department/unit dedicated to the implementation of e-learning at your institution?**

- Yes
- No

*** 13. Which division/centre/department/unit is in charge of e-learning at your institution?**

- Chancellery/Top Management
- Teaching & Learning Division/Centre/Department/Unit
- Academic Development Division/Centre/Department/Unit
- Quality Assurance Division/Centre/Department/Unit
- ICT Division/Centre/Department/Unit
- e-Learning Division/Centre/Department/Unit
- Quality Division/Centre/Department/Unit
- Other (please specify)

*** 14. Who is the person in-charge of the e-learning at your institution?**

- Coordinator of e-learning
- Director of e-learning
- Chair of e-learning Committee
- IT Director
- Quality Assurance Director
- Other (please specify)

Malaysian IHL e-Learning Questionnaire (eLearning Admin) (Appendix 1)

*** 15. Does your institution have a central committee in charge of the planning, implementation and monitoring of e-learning?**

- Yes
- No

*** 16. Does your institution have a yearly financial allocation for the implementation of e-learning?**

- Yes
- No

If yes to Q16

*** 17. If Yes to Question 16, your institution's yearly e-learning financial allocation normally include:**

- | | |
|--|---|
| <input type="checkbox"/> Physical infrastructure (e.g. Networks, Labs) | <input type="checkbox"/> Benchmarking |
| <input type="checkbox"/> Hardware (e.g. Computers, Laptops) | <input type="checkbox"/> Consultancy |
| <input type="checkbox"/> Software (e.g. LMS, Development Tools) | <input type="checkbox"/> Research |
| <input type="checkbox"/> Training | <input type="checkbox"/> Content/System Development |

Other (please specify)

If no to Q16

*** 18. Does your institution currently have a common/centralised e-learning platform/Learning Management System (LMS)?**

- Yes
- No

If yes to Q18

*** 19. If Yes to Question 18, the e-learning platform/LMS in your institution is:**

- Built in-house
- Bought commercially
- Open source
- Other (please specify)

Malaysian IHL e-Learning Questionnaire (eLearning Admin) (Appendix 1)

*** 20. If Yes to Question 18, which of the e-learning platform/LMS is your institution currently using?**

- Blackboard
- Learning Care
- WebCT
- Moodle
- Other (please specify)

*** 21. If Yes to Question 18, which of the following accurately describe the e-learning platform/LMS used at your institution?**

- Purchased and used as it is
- Purchased and customized according to institution's needs
- Open source platform
- Open source platform that is modified by internal/external experts
- Developed in-house
- Other (please specify)

*** 22. If Yes to Question 18, how long has your institution been using the current e-learning platform/LMS?**

- Less than 1 year
- 1 year – 3 years
- More than 3 years

*** 23. If Yes to Question 18, what are the major features/tools available in the e-learning platform/LMS used at your institution? (You may choose more than one answer if applicable)**

- Communication (e.g. Forum, chat)
- Productivity (e.g. Calendar, Scheduler)
- Student Involvement (e.g Groupwork, Portfolios)
- Administration (e.g. Student enrollment & registration)
- Course Delivery (e.g. Course Management, Assessment, Tracking)
- Content Development (e.g. Course Templates, Content Sharing)
- Other (please specify)

Malaysian IHL e-Learning Questionnaire (eLearning Admin) (Appendix 1)

*** 24. If Yes to Question 18, is there any Research & Development done to enhance the current e-learning platform/LMS at your institution?**

- Yes
- No

*** 25. If Yes to Question 18, which of the following components are integrated into the e-learning platform/LMS at your institution? (You may choose more than one answer if applicable)**

- | | |
|--|---|
| <input type="checkbox"/> Financial System | <input type="checkbox"/> Staff Information System |
| <input type="checkbox"/> Library Management System | <input type="checkbox"/> Student Information System |
| <input type="checkbox"/> Other (please specify)
<div style="border: 1px solid black; height: 20px; width: 100%;"></div> | |

*** 26. If Yes to Question 18, is your current e-learning platform/LMS SCORM/AICC compliant?**

- Yes
- No
- Not sure

*** 27. Was there any other platform(s) used at your institution before the current e-learning platform/LMS?**

- Yes
- No

If Yes to Q27

*** 28. If Yes to Question 27, why did your institution migrate to the current e-learning platform/LMS? (you may choose more than one answer if applicable)**

- Cost effectiveness
- Ease of use
- Following the current trends
- Scalability
- Data integration with institution's database systems
- Other (please specify)

If no to Q18 , If No to Q27

Malaysian IHL e-Learning Questionnaire (eLearning Admin) (Appendix 1)

*** 29. Does your institution provide training on e-learning to the teaching staff?**

- Yes
- No

*** 30. Does your institution provide training on e-learning to the support staff?**

- Yes
- No

*** 31. Does your institution provide training on e-learning to the students?**

- Yes
- No

*** 32. Which of the following aspects/topics are covered in the staff training on e-learning at your institution? (You may choose more than one answer if applicable)**

- | | |
|---|--|
| <input type="checkbox"/> Overview of e-learning | <input type="checkbox"/> Institution's e-learning platform/LMS |
| <input type="checkbox"/> Policy of e-learning | <input type="checkbox"/> E-Content Development |
| <input type="checkbox"/> Pedagogy of e-learning | <input type="checkbox"/> Web 2.0 |
| <input type="checkbox"/> Other (please specify)

<input type="text"/> | |

*** 33. Does your institution's training and development programmes include training on e-learning?**

- Yes
- No

*** 34. How often is the training on e-learning conducted at your institution?**

- 1-3 times yearly
- 4-6 times yearly
- More than 6 time yearly

*** 35. What is the average duration of each training session?**

- 1/2 day or less
- 1 day
- More than 1 day

Malaysian IHL e-Learning Questionnaire (eLearning Admin) (Appendix 1)

*** 36. What are the main modes of the training on e-learning made available at your institution? (You may choose more than one answer if applicable)**

- | | |
|--|---|
| <input type="checkbox"/> CD based training | <input type="checkbox"/> Blended training |
| <input type="checkbox"/> Face-to-face classroom training | <input type="checkbox"/> Fully online training |
| <input type="checkbox"/> On demand one-to-one training | |
| <input type="checkbox"/> Other (please specify) | <input style="width: 150px; height: 20px; border: 1px solid #ccc; margin-top: 5px;" type="text"/> |

*** 37. Is the training voluntary or compulsory on all the teaching staff at your institution?**

- Voluntary to all
- Compulsory to all
- Compulsory to new staff only

*** 38. Who are your main trainers/facilitators in-charge of conducting the e-learning workshops? (You may choose more than one answer if applicable)**

- In-house experts
- Local consultants
- Foreign consultants

*** 39. How do these trainers get their training? (You may choose more than one answer if applicable)**

- Own expertise (Ph.D. in related fields)
- Attended national/international workshops on e-learning
- Attended Training of Trainers (TOT) courses
- Other (please specify)

*** 40. Is there a dedicated centre/division/department/unit responsible for the development of e-content at your institution?**

- Yes
- No

If yes to Q40

Malaysian IHL e-Learning Questionnaire (eLearning Admin) (Appendix 1)

*** 41. If Yes to Question 40, what are the main strategies adopted at your institution for the development of e-content?**

- Content is developed by an external content provider
- Content is developed solely by a dedicated centre/division/department/unit
- Content is developed collaboratively by a dedicated centre/division/department/unit and the subject matter experts
- Content is developed solely by individual subject matter experts/lecturers
- Other (please specify)

*** 42. If Yes to Question 40, what are development/authoring tools used by your institution for developing e-content? (You may choose more than one answer if applicable)**

- | | |
|--|--|
| <input type="checkbox"/> Lecture Maker | <input type="checkbox"/> Flash |
| <input type="checkbox"/> Camtasia Studio | <input type="checkbox"/> Articulate |
| <input type="checkbox"/> Adobe Captivate | <input type="checkbox"/> Raptivity Interactive Builder |

Other (please specify)

*** 43. If Yes to Question 40, who are the persons involved in the e-content development at your institutions? (You may choose more than one answer if applicable)**

- | | |
|--|--|
| <input type="checkbox"/> Programmers | <input type="checkbox"/> Subject Matter Experts/Lecturers |
| <input type="checkbox"/> Instructional Designers | <input type="checkbox"/> Editor of e-Content |
| <input type="checkbox"/> Graphic Designers/Illustrators | <input type="checkbox"/> Multimedia Developers (e.g. Animators, Audio/Video Engineers) |
| <input type="checkbox"/> Voice Artist/Composers | |
| <input type="checkbox"/> Other (please specify)
<input style="width: 200px; height: 15px; margin-top: 5px;" type="text"/> | |

*** 44. If Yes to Question 40, what facilities are made available to subject matter experts/lecturers if they are interested to develop their own e-content? (You may choose more than one answer if applicable)**

- | | |
|--|--|
| <input type="checkbox"/> Development grants | <input type="checkbox"/> Training related to e-content development |
| <input type="checkbox"/> Development/authoring tools | <input type="checkbox"/> Storage Server |
| <input type="checkbox"/> Technical advice/consultancy | <input type="checkbox"/> Recording equipment/facilities/studio |
| <input type="checkbox"/> Other (please specify)
<input style="width: 200px; height: 15px; margin-top: 5px;" type="text"/> | |

Malaysian IHL e-Learning Questionnaire (eLearning Admin) (Appendix 1)

*** 45. Are the subject matter experts/lecturers given incentives for developing e-content at your institution?**

- Yes
- No

If Yes to Q45

*** 46. If Yes to Question 45, what form of incentives are given to subject matter experts/lecturers for e-Content Development? (You may choose more than one answer if applicable)**

- | | |
|--|---|
| <input type="checkbox"/> Monetary/Honorarium | <input type="checkbox"/> Awards/Recognitions |
| <input type="checkbox"/> Reduced teaching workload | |
| <input type="checkbox"/> Other (please specify) | <input style="width: 100px; height: 20px; margin-top: 5px;" type="text"/> |

If no to Q45

*** 47. Is there any quality assurance mechanism/procedure/guideline available at your institution for the development of e-learning content?**

- Yes
- No

If no to Q40

*** 48. If Yes to Question 47, Is e-Learning part of your institution's Continuous Quality Improvement (CQI)?**

- Yes
- No

*** 49. If Yes to Question 47, which centre/division/department/unit is responsible for Quality Assurance related to e-Learning?**

- | | |
|--|---|
| <input type="radio"/> Quality Management
Centre/Division/Department/Unit | <input type="radio"/> Academic Development
Centre/Division/Department/Unit |
| <input type="radio"/> Teaching & Learning
Centre/Division/Department/Unit | |
| <input type="radio"/> Other (please specify) | <input style="width: 100px; height: 20px; margin-top: 5px;" type="text"/> |

If no to Q48

Malaysian IHL e-Learning Questionnaire (eLearning Admin) (Appendix 1)

*** 50. What is the current percentage of courses at your institution offered online (including fully online, blended, supplementary mode)?**

- | | |
|---------------------------------|--------------------------------------|
| <input type="radio"/> 0 – 10 % | <input type="radio"/> 31 - 40 % |
| <input type="radio"/> 11 – 20 % | <input type="radio"/> 41 - 50 % |
| <input type="radio"/> 21 - 30 % | <input type="radio"/> More than 50 % |

*** 51. What is the overall percentage of the awareness of e-learning policy among academic staff at your institution?**

- | | |
|---------------------------------|--------------------------------------|
| <input type="radio"/> 0 – 25 % | <input type="radio"/> 76 – 100 % |
| <input type="radio"/> 26 – 50 % | <input type="radio"/> Not sure |
| <input type="radio"/> 51 – 75 % | <input type="radio"/> Not applicable |

*** 52. What is the overall percentage of the achievement of your institution's e-learning implementation plan?**

- | | |
|---------------------------------|--------------------------------------|
| <input type="radio"/> 0 – 25 % | <input type="radio"/> 76 – 100 % |
| <input type="radio"/> 26 – 50 % | <input type="radio"/> Not sure |
| <input type="radio"/> 51 – 75 % | <input type="radio"/> Not Applicable |

*** 53. What is the overall percentage of support/commitment from the various stakeholders in the implementation of the e-learning policy at your institution?**

	0 – 25%	26 – 50%	51 – 75%	76 – 100%	Not Sure	Not Applicable
Top management	<input type="radio"/>					
Faculty/School/Department	<input type="radio"/>					
Lecturers	<input type="radio"/>					
Students	<input type="radio"/>					

*** 54. Do you think that the current governance structure of e-learning at your institution is effective?**

- | |
|---------------------------|
| <input type="radio"/> Yes |
| <input type="radio"/> No |

*** 55. Do you think that the facilities provided by your institution are sufficient for the effective implementation of e-learning?**

- | |
|---------------------------|
| <input type="radio"/> Yes |
| <input type="radio"/> No |

Malaysian IHL e-Learning Questionnaire (eLearning Admin) (Appendix 1)

*** 56. Are the e-learning representatives at the faculty/school/department level playing an effective role to encourage the use of e-learning at your institution?**

- Yes
- No
- Not Applicable

*** 57. In terms of the following, what is the overall performance of the e-learning platform/LMS at your institution?**

	Poor	Moderate	Good	Excellent
Accessibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reliability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
User friendliness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flexibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scalability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Integration with other systems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 58. What is the overall percentage of teaching staff trained so far on e-learning at your institution?**

- 0 - 10 %
- 36 - 50 %
- 11 - 35 %
- More than 50%

*** 59. Do you have follow up programmes to reinforce the e-learning training conducted for the teaching staff?**

- Yes
- No

*** 60. Is attendance in the e-learning training part of your staff's yearly appraisal?**

- Yes
- No

*** 61. How easily accessible is the online learning materials to the students at your institution?**

- Not easily accessible
- Easily accessible
- Moderately accessible
- Very easily accessible

Malaysian IHL e-Learning Questionnaire (eLearning Admin) (Appendix 1)

* 62. How compatible is the online learning materials at your institution with the current teaching & learning environment?

- | | |
|---|---------------------------------------|
| <input type="radio"/> Not compatible | <input type="radio"/> Compatible |
| <input type="radio"/> Moderately compatible | <input type="radio"/> Very compatible |

* 63. How interactive is the online learning materials developed at your institution?

- | | |
|--|--|
| <input type="radio"/> Not interactive | <input type="radio"/> Interactive |
| <input type="radio"/> Moderately interactive | <input type="radio"/> Very interactive |

* 64. Does your institution periodically measure the impact of e-learning on staff delivery/methods?

- | |
|---------------------------|
| <input type="radio"/> Yes |
| <input type="radio"/> No |

* 65. Does your institution periodically measure the impact of e-learning on student learning outcomes/achievements?

- | |
|---------------------------|
| <input type="radio"/> Yes |
| <input type="radio"/> No |

* 66. Is copyright an important issue at your institution as far as online learning material development is concerned?

- | |
|---------------------------|
| <input type="radio"/> Yes |
| <input type="radio"/> No |

* 67. How well is the e-learning policy accepted by the teaching staff at your institution?

- | | |
|---|--|
| <input type="radio"/> Not well accepted | <input type="radio"/> Very well accepted |
| <input type="radio"/> Moderately accepted | <input type="radio"/> Not applicable |
| <input type="radio"/> Well accepted | |

Malaysian IHL e-Learning Questionnaire (eLearning Admin) (Appendix 1)

*** 68. What are the main problems/challenges related to the governance of e-learning at your institution? (You may choose more than one answer if applicable)**

- No clear policy on e-learning
- Lack of man power
- No clear line of responsibility on the planning/implementation of e-learning
- Lack of incentive for those involved in the implementation of e-learning
- Lack of support from top management
- No dedicated centre/division/department/unit on e-learning
- No clear governance structure
- Other (please specify)

*** 69. What are the main challenges faced by your institution in getting the teaching staff to use the existing e-learning platform/LMS? (You may choose more than one answer if applicable)**

- | | |
|---|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> Preference over open source platforms <input type="checkbox"/> Busy with research/publication <input type="checkbox"/> Skeptical about e-learning <input type="checkbox"/> Not IT savvy/technophobia <input type="checkbox"/> Other (please specify)
 <input style="width: 150px; height: 1.2em; border: 1px solid black; margin-top: 2px;" type="text"/> | <ul style="list-style-type: none"> <input type="checkbox"/> Complacent with existing teaching practices <input type="checkbox"/> LMS not user-friendly <input type="checkbox"/> Overload with teaching responsibilities <input type="checkbox"/> No training on the use of LMS |
|---|--|

*** 70. Does your institution allow/encourage academic staff to use Web 2.0 tools (e.g. Facebook, blogs, Twitter, YouTube, etc) as alternatives to your institution existing e-learning platform/LMS?**

- Yes
- No

Malaysian IHL e-Learning Questionnaire (eLearning Admin) (Appendix 1)

*** 71. What are the main challenges your institution face in conducting effective e-learning training?**

(You may choose more than one answer if applicable)

- Poor Attendance
- Unsuitable training schedule
- Insufficient facilities
- Lack of competent trainers
- Insufficient training budget
- Lack of training modules
- Lack of the motivation among the teaching staff
- Other (please specify)

*** 72. What are the main challenges your institution face in e-Content development? (You may choose more than one answer if applicable)**

- No dedicated e-content development team
- Lack of support from the top management
- Lack of funding/budget
- Lack of expertise
- Lack of commitment from the teaching staff
- Not applicable
- Lack of motivation among the teaching staff
- Other (please specify)

*** 73. Please indicate the types of e-learning courses that are offered at your institution (terms of the overall percentage).**

	0 – 20%	21 – 40%	41 – 60%	61 – 80%	81 – 100%
Online Distance – Learning Courses (None or very minimal face-to-face interaction).	<input type="radio"/>				
Hybrid/Blended courses (Combination of face-to-face with online interaction).	<input type="radio"/>				
Traditional face-to-face courses supplemented with online materials	<input type="radio"/>				
Traditional face-to-face courses without online interaction/materials.	<input type="radio"/>				

Malaysian IHL e-Learning Questionnaire (eLearning Admin) (Appendix 1)

*** 74. What additional features of e-learning is your institution planning to include in the future? (You may choose more than one answer if applicable)**

- Mobile learning
- Pod casting
- Intelligent tutoring system
- Simulation
- Educational Game
- Other (please specify)

*** 75. Which institution are you currently attached to?**

- | | | |
|--|------------------------------|---------------------------------|
| <input type="radio"/> UKM | <input type="radio"/> UTM | <input type="radio"/> UniMAP |
| <input type="radio"/> USM | <input type="radio"/> UMS | <input type="radio"/> UMP |
| <input type="radio"/> UM | <input type="radio"/> UNIMAS | <input type="radio"/> MMU |
| <input type="radio"/> UPM | <input type="radio"/> USIM | <input type="radio"/> OUM |
| <input type="radio"/> UiTM | <input type="radio"/> UTHM | <input type="radio"/> AeU |
| <input type="radio"/> UPSI | <input type="radio"/> UTEM | <input type="radio"/> Sunway UC |
| <input type="radio"/> UUM | <input type="radio"/> UMK | <input type="radio"/> PSA |
| <input type="radio"/> UPNM | <input type="radio"/> UMT | <input type="radio"/> PUO |
| <input type="radio"/> UIAM | <input type="radio"/> UniSZA | <input type="radio"/> PJB |
| <input type="radio"/> Other (please specify)
<input style="width: 150px; height: 15px; border: 1px solid black; margin-top: 5px;" type="text"/> | | |

76. If you would like to be included in the Lucky Draw (for submission before 30th August 2010), please provide the following information:

Name:	<input style="width: 150px; height: 15px; border: 1px solid black;" type="text"/>
Institute:	<input style="width: 150px; height: 15px; border: 1px solid black;" type="text"/>
Address:	<input style="width: 150px; height: 15px; border: 1px solid black;" type="text"/>
City:	<input style="width: 150px; height: 15px; border: 1px solid black;" type="text"/>
State:	<input style="width: 150px; height: 15px; border: 1px solid black;" type="text"/>
Area Code:	<input style="width: 150px; height: 15px; border: 1px solid black;" type="text"/>
Email Address:	<input style="width: 150px; height: 15px; border: 1px solid black;" type="text"/>
Phone Number:	<input style="width: 150px; height: 15px; border: 1px solid black;" type="text"/>

Malaysian IHL e-Learning Questionnaire (Instructor) (Appendix 2)

Please provide your responses to all the questions.

*** 1. Is there an e-learning policy at your institution?**

- Yes
- No
- Not Sure

If yes to Question 1

*** 2. Are you aware of the e-learning policy at your institution?**

- Yes
- No

If yes to Q2

*** 3. If Yes to Question 2, how did you know about the policy? (You may choose more than one answer if applicable)**

- Directives/Memos from the institution
- Institution's website
- Booklet/Manual provided by the institution
- Staff Induction
- Through Continuous Professional Development Training
- Word of mouth
- Other (please specify)

*** 4. How much have you conformed to the e-learning policy at your institution?**

- | | |
|---------------------------------|----------------------------------|
| <input type="radio"/> Fully | <input type="radio"/> Not at all |
| <input type="radio"/> Partially | <input type="radio"/> Not sure |

If no or not sure to Q1

*** 5. Currently are you using the e-learning platform/LMS provided by your institution?**

- Yes
- No

Malaysian IHL e-Learning Questionnaire (Instructor) (Appendix 2)

* 6. If No to Question 5, what are the main reasons for not using it? (You may choose more than one answer if applicable)

- Lack of training
- Lack of time
- Adding to teaching workload
- Institution's emphasis on Research & Publication
- Using other e-learning tools
- Technically not competent
- Lack of facilities
- Lack of support (no technical support/no helpdesk)
- Copyright issues
- Not comfortable with existing e-learning platform/LMS
- Existing platform/LMS not user friendly
- Prefer conventional teaching method
- Prefer other social networking tools
- Other (please specify)

* 7. If No to Question 5, what other platforms/applications are you currently using for teaching? (You may choose more than one answer if applicable)

- Photo/Video Sharing (e.g. Flickr, YouTube)
- Blogs (e.g. Wordpress, Blogspot)
- Content Sharing (e.g. Slideshare)
- Collaboration Tools (e.g. Wikis, Google Docs)
- Communication Tools (e.g. Yahoo Messenger, Skype)
- Social Networking (e.g. Facebook, MySpace, Twitter)
- Audio/Video Broadcasting (e.g. Podcast)
- Other (please specify)

If yes to Q5

Malaysian IHL e-Learning Questionnaire (Instructor) (Appendix 2)

* 8. If Yes to Question 5, which features of the e-learning platform/LMS have you used most? (You may choose more than one answer if applicable)

- Communication (e.g. Forum, chat)
- Productivity (e.g. Calendar, Schedular)
- Student Involvement (e.g Groupwork, Portfolios)
- Administration (e.g. Student enrollment & registration)
- Course Delivery (e.g. Course Management, Assessment, Tracking)
- Content Development (e.g. Course Templates, Content Sharing)
- Other (please specify)

* 9. Besides the e-learning platform/LMS provided by your institution, which of the following tools are you also using as alternatives: (You may choose more than one answer if applicable)

- Photo/Video Sharing (e.g. Flickr ,YouTube)
- Blogs (e.g. Wordpress, Blogspot)
- Content Sharing (e.g. Slideshare)
- Collaboration Tools (e.g. Wikis, Google Docs)
- Communication Tools (e.g. Yahoo Messenger, Skype)
- Social Networking (e.g. Facebook, MySpace, Twitter)
- Audio/Video Broadcasting (e.g. Podcast)
- Other (please specify)

* 10. On average, how often do you access/use the tools/applications available in the e-learning platform/LMS provided by your institution?

- Once a semester
- Once a day
- Once a month
- A few times a day
- Once a fortnight
- Not at all
- Once a week

Malaysian IHL e-Learning Questionnaire (Instructor) (Appendix 2)

*** 11. How would you rate the performance of the e-learning platform/LMS made available at your institution in terms of the following:**

	Poor	Moderate	Good	Excellent	Not Sure
Accessibility	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reliability	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
User friendliness	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Security	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flexibility	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Integration with other systems	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 12. During the current semester how often have you utilized the following tools made available via the e-learning platform/LMS provided by your institution?**

	Never	Sometimes	Often	Very Often
Email	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forum	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bookmarking	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scheduler	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Searching Within Course	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Groupwork	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community Networking	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Portfolio	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Enrollment	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Grouping	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Course Management	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assessment	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gradebook/Tracking	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Course Templates	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Content Sharing	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Malaysian IHL e-Learning Questionnaire (Instructor) (Appendix 2)

*** 13. Which of the following tools do you think have benefited your teaching the most?
(You may choose more than one answer if applicable)**

- | | |
|--|---|
| <input type="checkbox"/> Email | <input type="checkbox"/> Student Portfolio |
| <input type="checkbox"/> Forum | <input type="checkbox"/> Student Enrollment |
| <input type="checkbox"/> Chat | <input type="checkbox"/> Student Grouping |
| <input type="checkbox"/> Bookmarking | <input type="checkbox"/> Course Management |
| <input type="checkbox"/> Scheduler | <input type="checkbox"/> Assessment |
| <input type="checkbox"/> Searching Within Course | <input type="checkbox"/> Gradebook/Tracking |
| <input type="checkbox"/> Groupwork | <input type="checkbox"/> Course Templates |
| <input type="checkbox"/> Community Networking | <input type="checkbox"/> Content Sharing |

*** 14. Please rate the following tools made available in the e-learning platform/LMS provided by your institution in terms of its usefulness for teaching and learning?**

	Not Useful	Somewhat Useful	Useful	Very Useful
Email	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bookmarking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scheduler	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Searching Within Course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Groupwork	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community Networking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Portfolio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Enrollment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Grouping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Course Management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assessment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gradebook/Tracking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Course Templates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Content Sharing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Malaysian IHL e-Learning Questionnaire (Instructor) (Appendix 2)

*** 15. What format of learning materials do you normally provide to your students? (You may choose more than one answer if applicable)**

- Common file format (e.g. pdf, ppt, doc, xls)
- Multimedia file format (e.g Mpeg, wmv, mp3, avi)
- Streaming file format (e.g. swf, flv)
- Software application file format (e.g exe)
- Other (please specify)

*** 16. How do you normally upload your learning materials onto the e-learning platform/LMS provided by your institution?**

- Everything at the beginning of the semester
- Gradually on weekly basis before the lecture
- Gradually on weekly basis after the lecture
- Everything at the end of semester

*** 17. How much of the course assessment is done online?**

- None
- 11 – 20%
- 0 – 10%
- More than 20%

*** 18. Have you participated in any training sessions on e-learning offered by your institution over the last 2 years?**

- Yes
- No

If yes to Q18

*** 19. If Yes to Question 18, how useful was the session for your teaching?**

- Not Useful
- Useful
- Moderately Useful
- Very Useful

If no to Q18

*** 20. If No to Question 18, why didn't you participate in the training on e-learning?**

- Not relevant
- Lack of information/unaware about it
- Wrong timing
- Not my priority
- Other (please specify)

Malaysian IHL e-Learning Questionnaire (Instructor) (Appendix 2)

* 21. Please indicate the e-learning training approach that you prefer to be adopted by your institution?

- CD based training
- Face-to-face classroom training
- On demand one-to-one training
- Blended training
- Fully online training
- Other (please specify)

* 22. Which of the following areas related to e-learning would you be interested to know more? (You may choose more than one answer if applicable)

- | | |
|---|--|
| <input type="checkbox"/> Content Management | <input type="checkbox"/> Assessment |
| <input type="checkbox"/> Pedagogy | <input type="checkbox"/> E-Content Development |
| <input type="checkbox"/> Other (please specify)
<input type="text"/> | |

* 23. To what extend have you been able to apply what you have acquired so far from the e-learning training provided by your institution?

- Not at all
- Partially
- Fully

* 24. How competent do you think you are in developing e-content?

- | | |
|--|--------------------------------------|
| <input type="radio"/> Not Competent | <input type="radio"/> Competent |
| <input type="radio"/> Moderately Competent | <input type="radio"/> Very Competent |

* 25. Do you think that lecturers should be directly involved in developing e-content?

- Yes
- No

Malaysian IHL e-Learning Questionnaire (Instructor) (Appendix 2)

*** 26. What sort of support would you like to be made available by your Institution if you are to develop e-content on your own? (You may choose more than one answer if applicable)**

E-Content development grant

Content development Tools

Technical support/consultancy

Recording facilities/equipment/studio

Other (please specify)

*** 27. How many percent of the courses you offer this session at your institution is delivered in the blended mode?**

0 %

51 % -80 %

1 % - 20 %

More than 80 %

21 % to 50 %

*** 28. Is there an increase of e-learning activities in the courses you have offered over the past 2 years?**

Yes

No

*** 29. What is the overall percentage of learning materials/activities offered online in your course(s)?**

0 %

51 % to 80 %

1 % - 20 %

More than 80 %

21 % - 50 %

*** 30. Do you believe that the integration of e-learning into your courses has actually benefited your students?**

Yes

No

*** 31. Does the use of e-learning have a positive impact on your student experience/performance?**

Yes

No

Malaysian IHL e-Learning Questionnaire (Instructor) (Appendix 2)

* 32. What aspects of teaching and learning do you think have benefited most from your integration of e-learning? (You may choose more than one answer if applicable)

- Delivery of teaching and learning
- Development of content
- Interaction
- Assessment
- Management of learning
- Other (please specify)

* 33. What are the main challenges you face when integrating e-learning into the teaching and learning process? (You may choose more than one answer if applicable)

- Balancing teaching with research
- Infrastructure not ready for e-learning
- Technophobia
- Personal preference over traditional face-to-face teaching
- Time consuming
- Adapting to the new work culture
- No clear e-learning policy
- Lack of support service
- No reward/incentive for engagement in e-learning

* 34. How would you rate the overall level of integration of e-learning at your institution?

- | | |
|------------------------------------|--------------------------------|
| <input type="radio"/> Beginning | <input type="radio"/> Advanced |
| <input type="radio"/> Intermediate | <input type="radio"/> Not Sure |

Malaysian IHL e-Learning Questionnaire (Instructor) (Appendix 2)

* 35. What additional features of e-learning would you like to see in the future at your institution? (You may choose more than one answer if applicable)

- Mobile learning
- Pod casting
- Intelligent tutoring system
- Simulation
- Educational Game
- Other (please specify)

* 36. Which institution are you currently teaching at?

- | | | |
|--|------------------------------|---------------------------------|
| <input type="radio"/> UKM | <input type="radio"/> UTM | <input type="radio"/> UniMAP |
| <input type="radio"/> USM | <input type="radio"/> UMS | <input type="radio"/> UMP |
| <input type="radio"/> UM | <input type="radio"/> UNIMAS | <input type="radio"/> MMU |
| <input type="radio"/> UPM | <input type="radio"/> USIM | <input type="radio"/> OUM |
| <input type="radio"/> UiTM | <input type="radio"/> UTHM | <input type="radio"/> AeU |
| <input type="radio"/> UPSI | <input type="radio"/> UTEM | <input type="radio"/> Sunway UC |
| <input type="radio"/> UUM | <input type="radio"/> UMK | <input type="radio"/> PSA |
| <input type="radio"/> UPNM | <input type="radio"/> UMT | <input type="radio"/> PUO |
| <input type="radio"/> UIAM | <input type="radio"/> UniSZA | <input type="radio"/> PJB |
| <input type="radio"/> Other (please specify)
<input type="text"/> | | |

37. If you would like to be included in the Lucky Draw (for submission before 15th September 2010), please provide the following information:

Name:

Institute:

Address:

City:

State:

Area Code:

Email Address:

Phone Number:

Malaysian IHL e-Learning Questionnaire (Student) (Appendix 3)

Please provide your responses to all the questions.

* 1. What is the percentage of the courses you enroll in the current semester are available online?

- 0 -20 %
- 21-40%
- 41-60%
- 61-80%
- 81- 100%

* 2. How often do you access these online courses in the current semester?

- Once a semester
- Once a month
- Once a fortnight
- Once a week
- Once a day
- A few times a day
- None at all

* 3. Where do you normally access these online courses? (You may choose more than one answer if applicable)

- Home
- Workplace
- Hostel
- Cyber café
- Computer lab
- Other (please specify)

* 4. Which of the following items do you use to access these online courses? (You may choose more than one answer if applicable)

- Desktop
- Laptop/netbook
- Handheld devices

Malaysian IHL e-Learning Questionnaire (Student) (Appendix 3)

*** 5. What is the main mode of access to these online courses?**

- | | |
|---|--|
| <input type="radio"/> Wired campus network | <input type="radio"/> Mobile Broadband |
| <input type="radio"/> Wireless campus network | <input type="radio"/> Wired Broadband/ADSL |

*** 6. Have you been given any training on how to use/access the e-learning platform/LMS provided by your institution?**

- | | |
|---------------------------|--|
| <input type="radio"/> Yes | |
| <input type="radio"/> No | |

*** 7. If Yes to Question 6, how would you rate the performance of the e-learning platform/LMS made available at your institution in terms of the following:**

	Poor	Moderate	Good	Excellent
Accessibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reliability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
User friendliness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flexibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 8. During the current semester, how often have you utilized the following tools made available via the e-learning Platform/LMS provided by your institution?**

	Never	Sometimes	Often	Very Often
Email	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bookmarking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scheduler	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Searching Within Course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Groupwork	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community Networking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Portfolio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Enrollment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Grouping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Course Management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assessment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gradebook/Tracking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Course Templates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Content Sharing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Malaysian IHL e-Learning Questionnaire (Student) (Appendix 3)

*** 9. Which of the following tools do you think have benefited you the most? (You may choose more than one answer if applicable)**

- | | |
|--|---|
| <input type="checkbox"/> Email | <input type="checkbox"/> Student Portfolio |
| <input type="checkbox"/> Forum | <input type="checkbox"/> Student Enrollment |
| <input type="checkbox"/> Chat | <input type="checkbox"/> Student Grouping |
| <input type="checkbox"/> Bookmarking | <input type="checkbox"/> Course Management |
| <input type="checkbox"/> Scheduler | <input type="checkbox"/> Assessment |
| <input type="checkbox"/> Searching Within Course | <input type="checkbox"/> Gradebook/Tracking |
| <input type="checkbox"/> Groupwork | <input type="checkbox"/> Course Templates |
| <input type="checkbox"/> Community Networking | <input type="checkbox"/> Content Sharing |

*** 10. Please rate the following tools made available in the e-learning platform/LMS provided by your institutions in terms of its usefulness?**

	Not Useful	Somewhat Useful	Useful	Very Useful
Email	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bookmarking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scheduler	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Searching Within Course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Groupwork	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Networking				
Student Portfolio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Enrollment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Grouping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Course Management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assessment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gradebook/Tracking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Course Templates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Content Sharing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Malaysian IHL e-Learning Questionnaire (Student) (Appendix 3)

* 11. What format of learning materials are normally provided by your instructors/lecturers? (You may choose more than one answer if applicable)

- Common file format (eg: pdf, ppt, doc, xls)
- Multimedia file format (eg: Mpeg, wmv, mp3, avi)
- Streaming file format (eg: swf, flv)
- Software application file format (eg: exe)
- Other (please specify)

* 12. Which of the following scenario normally applies to you?

- I download the materials provided and read them offline
- I access the material provided and read them online

* 13. How do your lecturers normally upload the course learning materials?

- Everything at the beginning of the semester
- Gradually on weekly basis after the lecture
- Gradually on weekly basis before the lecture
- Everything at the end of semester

* 14. Which of the following activities do you prefer to be made available online? (You may choose more than one answer if applicable)

- Forum/Chatting
- Self directed learning
- Interactive quizzes
- Collaborative assignments
- Other (please specify)

* 15. How much of the assessment of the courses you are currently undertaking is done online?

- None
- 11- 20 %
- 0 – 10 %
- More than 20 %

Malaysian IHL e-Learning Questionnaire (Student) (Appendix 3)

* 16. Which of the following tools/applications are used by your lecturers besides the tools made available in the e-learning platform/LMS provided at your institution? (You may choose more than one answer if applicable)

- Photo/Video Sharing (e.g. Flickr ,YouTube)
- Blogs (e.g. Wordpress, Blogspot)
- Content Sharing (e.g. Slideshare)
- Collaboration Tools (e.g. Wikis, Google Docs)
- Communication Tools (e.g. Yahoo Messenger, Skype)
- Social Networking (e.g. Facebook, MySpace, Twitter)
- Audio/Video Broadcasting (e.g. Podcast)
- Other (please specify)

* 17. Generally how much do you enjoy engaging in the following online activities?

	Not At All	A Little	A Lot
Chatting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online quizzes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collaborative workspace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 18. What are the challenges/problems you often encounter while engaging in the online environment? (You may choose more than one answer if applicable)

- | | |
|---|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> Lack of accessibility <input type="checkbox"/> Technophobia <input type="checkbox"/> Poor computing skills <input type="checkbox"/> Lack of content <input type="checkbox"/> Uninteresting content <input type="checkbox"/> Poor feedback response time <input type="checkbox"/> Lack of technical support service | <ul style="list-style-type: none"> <input type="checkbox"/> No helpdesk <input type="checkbox"/> Time consuming <input type="checkbox"/> Prefer face-to-face mode <input type="checkbox"/> Lack of publicity <input type="checkbox"/> No part of formal assessment <input type="checkbox"/> Financial constraint <input type="checkbox"/> Not as interesting as others tools/application (e.g. facebook etc) |
|---|---|

Malaysian IHL e-Learning Questionnaire (Student) (Appendix 3)

*** 19. How would you rate the overall level of integration of e-learning at your institution?**

- Beginning
- Intermediate
- Advanced
- Not sure

*** 20. What additional features of e-learning would you like to see in the future at your institution? (You may choose more than one answer if applicable)**

- Mobile learning
- Pod casting
- Intelligent tutoring system
- Simulation
- Educational Game
- Other (please specify)

*** 21. Which institution are you currently pursuing your studies at?**

- | | | |
|--|------------------------------|---------------------------------|
| <input type="radio"/> UKM | <input type="radio"/> UTM | <input type="radio"/> UniMAP |
| <input type="radio"/> USM | <input type="radio"/> UMS | <input type="radio"/> UMP |
| <input type="radio"/> UM | <input type="radio"/> UniMAS | <input type="radio"/> MMU |
| <input type="radio"/> UPM | <input type="radio"/> USIM | <input type="radio"/> OUM |
| <input type="radio"/> UiTM | <input type="radio"/> UTHM | <input type="radio"/> AeU |
| <input type="radio"/> UPSI | <input type="radio"/> UTEM | <input type="radio"/> Sunway UC |
| <input type="radio"/> UUM | <input type="radio"/> UMK | <input type="radio"/> PSA |
| <input type="radio"/> UPNM | <input type="radio"/> UMT | <input type="radio"/> PUO |
| <input type="radio"/> UIAM | <input type="radio"/> UniSZA | <input type="radio"/> PJB |
| <input type="radio"/> Other (please specify)
<input style="width: 150px; height: 15px; border: 1px solid black; margin-top: 5px;" type="text"/> | | |

Malaysian IHL e-Learning Questionnaire (Student) (Appendix 3)

22. If you would like to be included in the Lucky Draw (for submission before 15th September 2010), please provide the following information:

Name:	<input type="text"/>
Institute:	<input type="text"/>
Address:	<input type="text"/>
City:	<input type="text"/>
State:	<input type="text"/>
Area Code:	<input type="text"/>
Country:	<input type="text"/>
Email Address:	<input type="text"/>
Phone Number:	<input type="text"/>