

UNITAR's Experience with Online Live Tutorials

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Abstract

The main objectives of this paper are to explain what online live tutorials (OLT) are, to examine students and facilitators perceptions, preferences, and practices of OLT at UNITAR, based on a survey we conducted (586 student and 35 facilitator respondents) in 2003, and to provide advice, useful tips, and basic guidelines for new comers to OLT based on UNITAR's experience. At University Tun Abdul Razak (UNITAR) students participate in scheduled Online "Live" Tutorials (OLT) with facilitators, 1-4 times per course, in addition to face-to-face classes, online forums, and self-learning. The OLT (also referred to as Virtual Classroom or Live meeting) allows instructors to conduct tutorials synchronously or in real-time mode with students over the Internet. We are using Centra Symposium as our engine or real-time delivery platform for OLT. This paper will especially be useful for new comers to OLT, and those colleges or universities that are implementing or planning to implement it on an institution-wide basis. It will also reveal that the overall satisfaction-level for OLT at UNITAR is relatively low (2.83 out of 5.00). This could be due to many reasons, however based on the survey it indicates that the main problems are related to connectivity and access. Finally, this paper will discuss several key areas that need to be

examined and implemented to ensure that OLT is a meaningful, relevant, and effective component of teaching and learning, such as appropriate technical infrastructure (internal and external), monitoring, scheduling procedure/process, training, and OLT culture.

1. Introduction

Universiti Tun Abdul Razak (UNITAR) eLearning adventure began in September 1998, with only 162 students in two academic faculties. From the beginning, UNITAR's philosophy has been to provide quality education at an affordable fee with emphasis on skill development through the use of state-of-the-art technology. It pioneers a hybrid environment, combining the best from the eLearning and conventional approaches.

eLearning is typically used to describe media such as CD-ROM, audio or video tapes, Internet, intranet, wireless and mobile learning. It is the delivery of a learning, training or education program by electronic means. It can involve a greater variety of equipment than online learning, for as the name implies, "online" involves using the internet or an intranet. Distance education provided the base for eLearning and online learning development. More often now eLearning and online learning are interchangeably used to mean the same thing.

1.1.UNITAR Hybrid eLearning Model

UNITAR's unique hybrid eLearning model comprises six (6) main components:

- Courseware
- Virtual Online Instructional Support System (VOISS)
- Tutorial Meetings
- Study Center
- Virtual Library
- Customer Relationship Management

At UNITAR traditional lectures are replaced with instructionally sound interactive multimedia CDs or web-based courseware. Apart from the advantage of being accessible at the students own time and place, the quality of delivery is maintained at all times unlike a presentation given in the traditional classroom environment.

The Virtual Online Instructional Support System (VOISS) is a web-based course management system, which students and instructors can access via computers and Internet anywhere, anytime. It contains modules such as web-based courseware, forum, frequently-asked questions (FAQ), course announcement, e-mail, bulletin board, announcement, assignment, quiz, schedule, examination results, course registration, and billing. VOISS is the heart and backbone of UNITAR eLearning environment.

Tutorial meetings are divided into two modes: online and face-to-face meetings. Face-to-face meetings are mostly conducted at the study centers around the country. These meetings allow students and facilitators to meet and discuss issues. For the convenience of working students, the face-to face meetings are also conducted during weekends and after office hours where each session consists of 2 hours. Online meetings will be discussed in the next section (2.).

The study center is the place for students and instructors to meet for their face-to-face tutorials and extra-curricular activities. Like a campus, this also houses the basic facilities like classrooms, workstation, administrative

offices, network operation center, server farms, IT shop, cyber café, library and basic recreation facilities. Study centers are located in major towns so that students can reduce their traveling and accommodation expenses.

The main library of UNITAR is the virtual library, which is meant to support the content reference needs of students. Student can gain access to the virtual library anytime, anywhere from any computer with Internet access. The strength of the virtual library rests in its subscribed online databases with digital libraries (e.g. ProQuest Computing), which gives students access to thousands of titles. To supplement the Virtual Library, there are small information resource centres at all the UNITAR study centres which include traditional book collections and other materials that are relevant to the courses being conducted at UNITAR.

Finally, the round-the-clock Customer Relationship Management (CRM) call center, which is meant to support students facing academic, technical and personal problems, helps ensure customers' loyalty, recruits new customers and maintain an excellent customer contact point.

1.2 What are Online Live Tutorials?

Online live tutorials (OLT) are online meetings conducted by facilitators over the Internet with students in real-time mode. At UNITAR students participate in scheduled OLT with facilitators, 1-4 times per course (2 hours per session), in addition to face-to-face classes, online forums, and self-learning. This unique mode of teaching and learning allows the students to discuss with instructors and fellow students conveniently from their homes or where they are as long as they have a computer and appropriate Internet access (28.8 Kps line or higher).

We are using Centra Symposium as our engine or real-time delivery platform for OLT. Centra Symposium is recognized as

one of the top commercial web-conferencing tools in the world. Centra enables facilitators (online, in real time) to give presentations (using PowerPoint slides) with visual and audio capabilities, communicate with students through audio, chat, and symbolic icons (Raise Hand, Yes or No, Laugh, and Applause), use online whiteboard, conduct polls and quizzes, do screen sharing, web safari, and much more.

Although Centra symposium enables video or web-cam in addition to audio delivery, most OLT at UNITAR are conducted without using web-cam (bandwidth-intensive), because many of the students access OLT via a dial-up connection line (56Kps or less). Overall, OLT is unique in the sense that it can enable facilitators and students to communicate, collaborate, discuss, conduct presentations, and so on, even though they are separated by distance. OLT is especially useful for part-time and working adults, who are given more flexibility to attend tutorials, as they can attend from home, work, or anywhere.

2. Study Background

A survey was conducted from 12th to 23rd September (2003):

1. To obtain and examine students' and facilitators' perceptions, preferences, difficulties, practices and feedback in using OLT system.
2. To examine students' general satisfaction towards UNITAR and its teaching and learning model.

Five hundred and eighty six (586) students from UNITAR's three main faculties namely the Business Administration (FBA), Information Technology (FIT) and Humanities and Social Sciences (FHSS) faculties participated. These students were attending classes in the Kelana Jaya study center. The questionnaire for the students' survey was divided into two sections: Student OLT Survey and General Satisfaction Survey. The Students OLT

Survey comprised questions about students' background (demographics), preferences for time and duration of OLT, and an OLT general satisfaction rating scale. The General Satisfaction Survey consisted of questions designed to identify students' general satisfaction towards face to face tutorials, library services, courseware, VOISS, E-mail and customer service. A five point Likert Scale was used for the OLT survey and the General Satisfaction Survey whereby respondents were required to state the extent to which they agree or disagree with the statements in the questionnaire. A sample of 35 facilitators from all the three faculties was also surveyed on their demographics, preferences for time and duration, and satisfaction of OLT.

This paper will focus mostly on the findings about OLT, however, we will refer to the other findings regarding the general satisfaction towards UNITAR's hybrid eLearning model when needed. Refer to appendix A for all the summary data findings.

2.1 Students and Facilitators Demographics on OLT Access

Five hundred and eighty six (586) students reported on the demographic information of OLT access (see Table 1). The information obtained is related to their faculty, gender, status (full-time or part-time), age, ownership of computer, computer knowledge/skill, OLT experience, place for OLT access and the kind of connection line they used for OLT access. Below are some of the note-worthy findings:

- Most are full-time students (76.5%).
- More female students (59.4%).
- Most students are 30 years or below (17.3% + 78,5%= 95.8).
- Most students own a personal computer (83.9%).
- Most students consider their computer knowledge/skills to be intermediate (83%).

- Most students have had more than three semesters of OLT experience (68.9%).
- Most students either access the OLT from Kelana Jaya study center (46.1%) or from home (41.4%).
- (34.5%) students use a dial-up connection (56K or less) to access OLT.

Thirty five (35) lecturers were surveyed for their demographic and background information (see Table 2). The information gathered is related to their faculty, gender, age, computer knowledge/skills and OLT experience. Below are some of the noteworthy findings:

- The majority is female (58.8%).
- Most (52.9%) facilitators are from the 21 to 30 years age group, while (32.4%) are 31 to 40.
- Most of the facilitators rated themselves as having intermediate (52.9%) computer knowledge/skills, while (41.2%) said that they are experts.
- A majority have had three semesters or more experience conducting OLT (88.6%).

Although it was not asked in the survey, it was also found that most facilitators conduct their OLT from the Kelana Jaya Study Center.

2.2 Students' and Facilitators' Time and Duration Preferences for OLT

Both students and lecturers were asked about their preference for time and duration of the OLT (see Tables 3 and 4). Below are some of the note-worthy findings:

- Majority of both students (72.4%) and facilitators (90.6%) prefer to have their OLT on weekdays.
- Most part-time students (34% + 49% = 83%) prefer OLT from 18.00-22.00 (see Chart 1). Most facilitators prefer conducting OLT from 18.00-20.00 (50.0%). Interestingly, only (11.8%) of the facilitators preferred 20.00-22.00

and (32.4%) preferred 12.00-18.00. This is could be because they often conduct OLT from the Kelana Jaya Study Center, and not from home.

- Although UNITAR OLT are scheduled for two-hour tutorials, most students prefer OLT to be between 90 – 45 minutes (17.9% + 37.8% + 26.6% = 82.2%), and most facilitators prefer OLT to be between 90-60 minutes (33.3% + 36.4% = 69.7%).
- The majority of both students (69.5%) including part-time students (61%) (see Chart 2) and facilitators (73.5%) believe that the ratio between OLT compared to face-to-face tutorials should only be 1:4.

2.3 Students' and Facilitators' OLT Satisfaction

Students' and facilitators' satisfaction of OLT was investigated by a set of questions with responses in the form of a five-point Likert scale (see Tables 4 and 5). Students' overall satisfaction with OLT (2.83) is low or below the neutral zone = 3.00 (Neither agree/ nor disagree), and is significantly lower than UNITAR's overall satisfaction mean (3.45) (See Table 7). The only statement above UNITAR's overall satisfaction mean is statement eleven (3.51), which states, "OLT is flexible, because I can attend from anywhere."

In general, students are less satisfied with OLT (Centra) compared to other online applications used by UNITAR, such as VOISS (3.66), e-mail (3.96), and courseware (3.51) (See Table 7). Also, students prefer face-to-face (3.86) (See Table 7, statement 2) tutorials compared to OLT (2.55).

"In general, OLT is easy to access" (2.35) received the lowest mean, and after analyzing the additional comments (D) or complaints section (62%, or 120 out of 194 comments) in the survey, it was obvious that accessibility was the major issue or problem with OLT. Even students using Broadband

had problems accessing OLT (only approximately 16% agreed or strongly agreed that OLT is generally easy-to-access. See Chart 3). After examining the OLT accessibility problem carefully, it was discovered that one of the major reasons for all these access problems lay with our OLT class scheduling procedures, especially during peak periods between 18.00-22.00 pm. Often, we had scheduled too many classes (e.g. ten classes concurrently, with 20-40 students from each trying to access) at the same time, which caused network congestion and limitations to our 150 concurrent user license with Centra. Overall, the dissatisfaction with OLT access could be the major reason for why OLT received such low mean scores. Other possibilities could be due to the lack of proper training (2.86), server monitoring, online/offline support, and communication. On the positive note, students are comfortable using the chat feature (3.10), satisfied with the facilitators' competency skills in conducting OLT (3.12), like interacting with students and the facilitator during OLT (3.05), and like OLT's flexibility (3.51), as you can attend from anywhere.

Facilitators, on the other hand, found Centra easy-to-use (3.85), received sufficient training (3.37), found it easy to conduct OLT (3.31), easy-to-access (3.23), and in general liked conducting OLT (3.17). However, they did not prefer conducting OLT (2.65) to face-to-face tutorials, and felt that quality learning cannot take place without face-to-face interaction (2.66). Their biggest dissatisfaction was with the technical support (2.31), in cases of unexpected technical problems.

3. Six (6) Recommendations

Based on the findings from the survey and reports from the technical support team and CRM, there are six major areas that we need to reexamine and improve, to ensure that OLT is a meaningful, relevant, and

effective component of UNITAR's hybrid eLearning model. These five major areas are:

- Technical Infrastructure
- Monitoring
- Scheduling
- Training
- Support
- OLT Culture

3.1 Technical Infrastructure

Most of the complaints by both students and facilitators are about OLT access (often referring to the OLT server), which is often seen as the culprit for most of the problems with OLT, especially access. The technology division has already allocated a second server for OLT, which will hopefully improve OLT access for both facilitators and students. We must first and foremost ensure that students and facilitators can access OLT, or any other action taken would be fruitless.

3.2 Monitoring

Another area that needs to be improved is our current monitoring mechanism of OLT, so that we can learn from our mistakes (and best practices) to ensure that students' OLT experience is smoother and more enjoyable than before. This can, for example, be done by keeping track of students that have problems accessing OLT, as well as monitoring the server(s) performance, etc. Facilitators and the technical staff should get together more often and discuss current issues and problems, ensuring monitoring of both the human and technical level are consistent. In addition, we should conduct regular surveys to keep track of students' satisfaction with OLT. In this way we can see the progress (or not) from a satisfaction level, too.

3.3 Scheduling

The scheduling procedure and process also needs to be re-examined and improved. Our first target should be to unite selected representatives from each faculty, the

scheduling unit, and relevant technical personnel to share their ideas, knowledge and expertise. They should work as a team to ensure that OLT runs smoother, and are not hampered due to bad scheduling. This will ensure that the scheduling of OLT sessions takes into consideration the technical limitations and specifications, as well as the needs of each faculty. Scheduling OLT is much more complex than scheduling face-to-face tutorials, as we must also take into consideration the technical infrastructure (e.g. bandwidth, network) and the user license agreement with Centra (150 concurrent users). When scheduling OLT, it is also vital that we take into consideration the number of students attending each tutorial, and not just the number of tutorials at a given time. This is especially important during peak periods (18.00-22.00), which needs to be controlled and monitored extensively to ensure that students can access OLT during these periods.

3.4 Training

UNITAR's current OLT training model for students during the orientation week is not sufficient. In addition, we need to have follow-up sessions or opportunities for those that missed or still have problems using Centra. Facilitators should play a more active role in helping students using OLT, especially new students. Therefore, it is vital that facilitators get proper training too, and are able to practice and share what they have been taught. In addition, facilitators from the different faculties should work closer and share their ideas and expertise, ensuring that not only do they know how to use the system, but also know how to teach or facilitate OLT sessions in an effective and efficient manner. For example, at the beginning of each semester, a group of facilitators should come together (e.g. workshop) and share their experiences, resources, and expertise, so that they can

learn from each other's best practices, mistakes, etc.

3.5 Support

In addition to training, we must ensure that both online and offline support is easily accessible for students. Centra has a good user guide, however, we should add a FAQ (Frequently Answered Questions) page answering the most common problems faced by UNITAR students regarding OLT. The Customer Relationship Management (CRM) team should go through proper OLT training, so that they are well-equipped to answer questions by students. In addition, trained technical staff and facilitators should also ensure that students are given the appropriate advice, guidance, and instructions regarding user requirements, appropriate connection line, fire walls, etc. Even though UNITAR's technical infrastructure for OLT is optimized, it is not sufficient unless other requirements are also met, which should be conveyed clearly and consistently to both students and facilitators through the Online user-guide, FAQs, documentation, chat, forums, discussions, and simple communication.

3.6 OLT Culture

Both students and facilitators have mentioned that UNITAR lacks an OLT culture. Although there is lack of enthusiasm and joy with OLT at the moment, which is much to do with the current and past problems of OLT accessibility, hopefully in the future we can kick-start a proactive online/offline OLT community who are dedicated to improving our current way of using OLT to teach and learn. As mentioned earlier, we need to share our experiences, joy, sadness, problems, and best practices with one another, so that we can prevent or minimize the possibility of making mistakes, and also utilize proven methods or approaches, which will enhance the OLT, and improve students learning experiences.

In short, we need to facilitate an OLT culture in UNITAR, where OLT is seen as a necessary and enjoyable learning experience, instead of being seen as a burden and hassle.

4. Conclusion

To ensure that OLT is a meaningful, relevant, and effective teaching and learning component at UNITAR, we need to re-examine and improve the technical infrastructure, monitoring, scheduling, training, online/offline support, and facilitate a more dynamic OLT culture.

As the Internet broadband infra-structure is quickly evolving in Malaysia, and the commercial web-conferencing tools are becoming less-bandwidth intensive, cheaper, and increasingly resembling an actual classroom, online live learning is surely for the present and future in Malaysia and beyond. OLT has a bright future.

References

- Daing, Z. I., Alhabshi, S.O. & Alsagoff, Z.A. (2004). "Six Years of Pioneering ELearning, Where Are We Now?" *UNITAR Sdn Bhd.*

APPENDIX A

1) Tables

Table (1): Students' demographic and OLT access information

Background information	Options	Frequency	Valid Percent	Background information	Options	Frequency	Valid Percent
Faculty	FIT	272	46.4	Computer knowledge/ skills:	Beginner	40	6.9
	FHSS	104	17.7		Intermediate	483	83.0
	FBA	210	35.8		Experts	59	10.1
Gender	Male	236	40.6	OLT experience:	1st Semester	81	14.0
	Female	345	59.4		2nd Semester	99	17.1
Student Status	Part-time	136	23.5		3 Semesters or more	399	68.9
	Full-time	443	76.5	Where do you usually access OLT?	KJ	269	46.1
Age	Under 21	101	17.3		Office	23	3.9
	21-30	459	78.5		Internet Cafe	39	6.7
	31-40	20	3.4		Home	242	41.5
	41-50	3	.5		Others	10	1.7
	Over 50	2	.3	What kind of connection line (speed) do you usually use to access OLT?	Dial-up (56K or less)	201	34.5
Do you have a personal computer?	Yes	490	83.9		Broadband (More than 56K)	322	55.2
	No	94	16.1		Not sure	60	10.3

Table (2): Facilitators' demographic and background information.

Background Information	Options	Frequency	Valid Percent
Faculty	FIT	12	34.3
	FHSS	7	20.0
	FBA	16	45.7
Gender	Male	14	41.2
	Female	20	58.8
Age	21-30	18	52.9
	31-40	11	32.4
	41-50	5	14.7
Computer knowledge/ skills	Beginner	2	5.9
	Intermediate	18	52.9
	Experts	14	41.2
OLT experience	1 st Semester	2	5.7
	2 nd Semester	2	5.7
	3 Semesters or more	31	88.6

Table (3): Students' Time and Duration Preferences for OLT

Time & Duration	Options	Frequency	Valid Percent
I prefer taking OLT during:	Weekdays	418	72.4
	Weekends	159	27.6
I prefer taking OLT between:	08.00-12.00	122	21.0
	12.00-18.00	127	21.8
	18.00-20.00	194	33.3
	20.00-22.00	139	23.9
Ideally, the duration of OLT should be:	45 min.	104	17.9
	60 min.	219	37.8
	90.min.	154	26.6
	120 min.	103	17.8
Ideally, the percentage ratio of OLT compared to face-to-face tutorials should be:	25% OLT	404	69.5
	50% OLT	133	22.9
	75% OLT	37	6.4
	100% OLT	7	1.2

Table (4): Facilitators' Time and Duration Preferences for OLT

Time & Duration	Options	Frequency	Valid Percent
I prefer conducting OLT during:	Weekdays	29	90.6
	Weekends	3	9.4
I prefer conducting OLT between:	08.00-12.00	2	5.9
	12.00-18.00	11	32.4
	18.00-20.00	17	50.0
	20.00-22.00	4	11.8
Ideally, the duration of OLT should be:	45 min.	1	3.0
	60 min.	11	33.3
	90.min.	12	36.4
	120 min.	9	27.3
Ideally, the percentage ratio of OLT compared to face-to-face tutorials should be:	25% OLT	25	73.5
	50% OLT	9	26.5
	75% OLT	0	0
	100% OLT	0	0

Table (5): Students Satisfaction Rating Scale (OLT)

SD=Strongly disagree (1), D=Disagree (2), NAD=Neither agree/ nor disagree (3), A=Agree (4), SA=Strongly agree (5)

OLT Satisfaction Summary	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	-
Statements	<i>SD</i>	<i>D</i>	<i>NAD</i>	<i>A</i>	<i>SA</i>	<i>Mean</i>
1. I like OLT.	24.7%	23.7%	29.9%	15.9%	5.8%	2.54
2. I prefer OLT to face-to-face tutorials.	28.2%	26.5%	20.6%	11.3%	13.5%	2.55
3. In general, Centra (OLT) is easy to access.	26.8%	31.1%	25.6%	13.1%	3.4%	2.35
4. Centra is easy-to-use.	13.8%	23.2%	35.6%	23.8%	3.6%	2.80
5. I am comfortable communicating in writing (chat) during OLT.	7.2%	17.3%	37.3%	34.5%	3.8%	3.10
6. I prefer communicating orally (audio) during OLT.	9.8%	20.7%	43.9%	21.9%	3.8%	2.89
7. I received sufficient OLT training and documentation to use the system during the orientation week (IT training).	13.1%	19.8%	43.4%	20.5%	3.2%	2.86
8. UNITAR provides good support, in cases of unexpected technical problems, (CRM, technical support, etc).	14.4%	22.2%	39.5%	21.0%	2.9%	2.76
9. Facilitators' competency in conducting OLT is good at UNITAR.	5.1%	16.1%	43.7%	31.9%	3.1%	3.12
10. In general, I like interacting with the facilitator and students during OLT.	7.7%	17.7%	41.0%	29.0%	4.6%	3.05
11. OLT is flexible, because I can attend from anywhere.	7.7%	10.4%	23.7%	39.2%	18.9%	3.51
12. I feel that quality learning can take place without having face-to-face interaction.	28.5%	22.0%	29.2%	14.5%	5.8%	2.47
Overall OLT Satisfaction						= 2.83

Table (6): Facilitators Satisfaction Rating Scale (OLT)

SD=Strongly disagree (1), D=Disagree (2), NAD=Neither agree/ nor disagree (3), A=Agree (4), SA=Strongly agree (5)

Facilitators OLT Satisfaction Summary	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	-
Statements	<i>SD</i>	<i>D</i>	<i>NAD</i>	<i>A</i>	<i>SA</i>	<i>Mean</i>
1. I like conducting OLT.	14.3%	8.6%	11.4%	17.1%	8.6%	3.17
2. I prefer conducting OLT to face-to-face tutorials.	14.3%	11.4%	11.4%	10.0%	2.9%	2.65
3. It is easy to conduct OLT.	5.7%	12.9%	14.3%	18.6%	8.6%	3.31
4. It is easy to login (or re-login) to Centra (OLT).	11.4%	15.7%	10.0%	17.1%	5.7%	3.00
5. Centra is easy to access.	2.9%	11.4%	17.1%	17.1%	11.4%	3.23
6. Centra features (chat, survey, buttons, etc) are easy-to-use and understand.	0%	5.9%	11.8%	13.5%	8.8%	3.85
7. I received sufficient training to conduct OLT.	5.7%	17.1%	10.0%	18.6%	8.6%	3.37
8. UNITAR provides good support, in cases of unexpected technical problems (CRM, technical support, etc.).	20.0%	12.9%	12.9%	14.3%	0%	2.31
9. I feel that quality learning can take place without having face-to-face interaction.	20.0%	11.4%	11.4%	17.1%	0%	2.66
Overall OLT Satisfaction						= 3.06

Table (7): General Satisfaction Rating Summary

General Satisfaction Summary	1	2	3	4	5	-
Statements	<i>SD</i>	<i>D</i>	<i>NAD</i>	<i>A</i>	<i>SA</i>	Mean
1. Overall, I am satisfied with the face-to-face tutorials at UNITAR.	1.7%	2.9%	15.5%	47.3%	32.5%	4.06
2. I prefer face-to-face tutorials to OLT.	6.1%	8.0%	18.2%	29.5%	38.3%	3.86
3. Overall, I am satisfied with the library services at my study center.	1.7%	10.9%	36.7%	42.7%	8.0%	3.44
4. Offline resources (books, journals, etc) are adequate and relevant.	3.1%	15.4%	44.9%	32.4%	4.3%	3.19
5. Online resources are adequate and relevant.	2.6%	11.5%	44.2%	37.3%	4.5%	3.30
6. I prefer using the virtual library (compared to the conventional library) to find materials for my forums, assignments, and exams.	4.5%	15.1%	40.2%	32.2%	8.0%	3.24
7. Overall, I am satisfied with UNITAR courseware.	4.4%	8.9%	29.4%	45.9%	11.4%	3.51
8. Overall, I am satisfied with VOISS.	2.6%	8.0%	25.4%	48.5%	15.5%	3.66
9. VOISS is pleasant and easy-to-use (navigation, interface, forum, up/down load files, etc).	1.9%	7.2%	25.8%	48.5%	16.7%	3.71
10. VOISS is easily accessible (login).	3.6%	10.4%	29.5%	43.2%	13.4%	3.52
11. Overall, I am satisfied with UNITAR's e-mail system (Fastmail).	2.2%	5.6%	17.1%	44.4%	30.7%	3.96
12. Overall, UNITAR's website (homepage) is attractive and informative.	3.4%	7.5%	32.3%	45.1%	11.6%	3.54
13. UNITAR's website is easily accessible.	2.1%	8.2%	31.3%	47.1%	11.3%	3.57
14. Customer relations provided by the CRM of UNITAR is satisfactory.	5.3%	11.3%	44.5%	34.0%	4.9%	3.22
15. The services provided by Academic Affairs Department have been satisfactory.	5.3%	15.9%	42.0%	32.8%	4.1%	3.16
16. The services provided by the Student Affairs Department have been satisfactory.	6.1%	15.5%	42.8%	30.9%	4.6%	3.12
17. Overall, I am satisfied with the labs and workstations at my study center.	3.2%	9.1%	33.3%	41.9%	12.5%	3.51
18. There are enough PCs with Internet connection.	6.5%	14.8%	30.2%	36.9%	11.6%	3.32
19. The Internet connection is good.	3.2%	10.3%	32.8%	39.8%	13.8%	3.51
20. IT Training (VOISS, OLT, etc) provided at UNITAR is adequate.	3.4%	8.7%	46.2%	35.4%	6.3%	3.32
21. I would recommend UNITAR to others.	5.6%	9.4%	36.4%	38.5%	10.1%	3.38
+ OLT satisfaction (overall mean)						2.83
UNITAR Overall Satisfaction						= 3.45

2) Charts

Chart (1): Time preferences for OLT: Part-time Vs Full-time Students

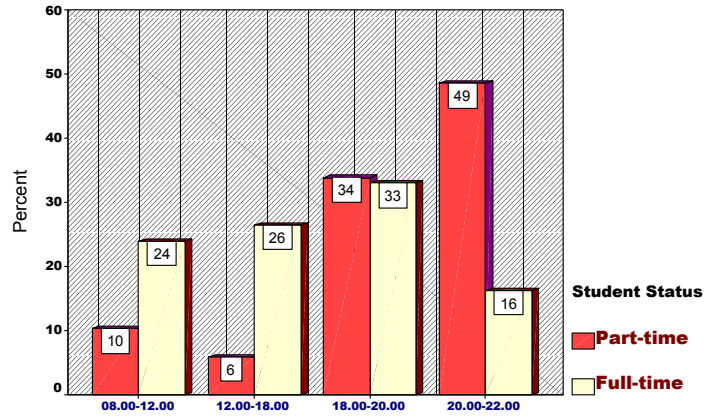


Chart (2): Percentage Ratio of OLT Vs Face-to-Face Tutorials

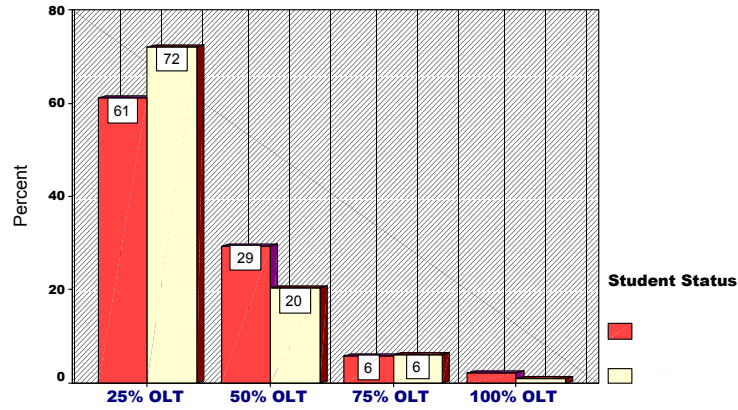


Chart (3): Connection line accessing OLT

