

**eLearning Course on Child
Psychology for the Primary School
Teachers of
Regent International College,
Gampaha.**

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2017



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Regent International College,
Gampaha.**

**A dissertation submitted for the Degree of Master of
Information Technology - eLearning**

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University of Colombo School of Computing

2017



Declaration

The thesis is my original work and has not been submitted previously for a degree at this or any other university/institute.

To the best of my knowledge it does not contain any material published or written by another person, except as acknowledged in the text.

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This is to certify that this thesis is based on the work of ~~Mr.~~Ms. W.V.C.N. Jayasinghe under my supervision. The thesis has been prepared according to the format stipulated and is of acceptable standard.

Certified by:

Supervisor Name: Prof. K.P. Hewagamage

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Date: 17/06/2017

Abstract

A teacher is like a candle, it consumes itself to light the lives of children. A teacher acts as a mentor who guides the students. He must know the growth and development of the child and his requirements at different levels. Child psychology helps the teacher to study the abilities, interests, needs and adopt different techniques of teaching for effective communication.

The aim of the project was to enhance the knowledge on child psychology by providing flexible learning environment to the teachers of the Pre-Primary School and the Primary School of the Regent international College Gampaha, who live busy life styles.

In order to make effective course, requirements of it was identified by conducting needs assessment. By analyzing the collected data, it was identified that all the teachers have positive attitude towards developing the eLearning course. By getting support from subject matter experts and analyzed data, a syllabus was made with five modules.

By following instructional design guidelines course was designed with content suitable for online learning environment. Different eLearning authoring tools were used for the course development in order make interactive learning environment. Free and open source eLearning platform, Moodle was used to implement the online learning environment.

Course evaluation was done to identify the achievements and the drawback of the project. By analyzing the data collected in the evaluation phase, it was identified that the eLearning course on Child psychology met the requirements of the learners as well as the school.

Acknowledgement

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List of Abbreviations

ADHD – Attention Deficit Hyperactivity Disorder

ADDIE – Analysis, Design, Development, Implementation and Evaluation

ASD – Autism Spectrum Disorder

DSM V– Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition

ID – Instructional Design

ISD – Instructional System Design

OCD – Obsessive Compulsive Disorder

Chapter 1: Introduction

1.1 Introduction to the project

School is the most important place in the lives of most children other than home. Their experience of school will play a vital part in their lives and will determine their academic, social and, probably their occupational future. Research shows that there is a link between the progress children make in the secondary school and the primary school experiences; therefore primary school education plays a major role in a life of a person.

Educating young children can be one of the most exciting but challenging task for the primary school teachers. A teacher should deal with a more than one student in the classroom with caution, because the characteristics and the behaviors of students are different from each other, therefore understanding them is very important to make effective learning environment with positive mental health and well-being.

Child Psychology course can help teachers in understanding differences in student characteristics. Therefore as the final year eLearning project, I thought of developing “An eLearning course on Child Psychology” for the Pre-Primary School and the Primary schoolteachers of Regent International College Gampaha.

1.2 The Context

Regent International College, established in 2001, is a popular international school in Gampaha. There are classes from Nursery to Year 13, which prepares students for edexcel IGCSE and Advanced Level examinations and Srilankan Ordinary Level English medium examinations. Currently the student population is around 700.

School management recruits teaching diploma holders to the Pre-Primary school and teaching diploma holders or graduates to the Primary school as teachers. Only graduate teachers are recruited to the Middle and the Upper School.

Currently the school is having children with mental disorders such as hyperactivity, depression, learning disorders and etc mostly in the Pre-Primary and the Primary School. Teachers as care takers in the Pre-Primary and Primary School face the following difficulties.

- If a child cannot be controlled at all, he/she is taken to the principal and send home.
- If the teacher finds it very difficult to control a child in the class, he may send out of the class for some time as a punishment and the student misses the lesson.
- In some mornings, some parents are struggling to keep the children(recognized as suffering from mental disorders) who are crying and shouting at school, which affects the smooth atmosphere of the school.
- Aggressive students make fear in the classroom, creating anxiety among fellow students and juniors.
- Physically and emotionally abusing other children which make unpleasant environment in classrooms and in the school.

The situations mentioned above cause the following problems.

- Gives out a bad picture to the parents, students and visitors of the school, which reflects how the school takes care of the social and emotional needs of the children. This may decrease the number of the new admissions to the school.
- Contribute to the unhappy teachers and children which makes in-effective teaching-learning environments in class rooms.
- Teachers may find it difficult to cover syllabuses and they may fail performance evaluation tests conducted at the end of each academic year. (performance evaluation criteria: examination results of children, coverage of syllabus on time, doing revision, no. of ethical complaints regarding teachers from the students or parents)
- Degrade the performance of the students with low marks in tests and they affect the personality development of children. Unhappy parents may make complaints against teachers regarding the marks, punishments done to children or lack of class control. This will give out a bad image for teachers who guide the children.

Even if the teachers are willing to help children, they cannot do it properly due to lack of knowledge in child psychology and the mental disorders.

Most of the teaching diploma holders have followed Child Psychology as a subject which covers the learning theories and educational psychology, but they lack in the knowledge of child development and mental disorders of children. Most of them have forgotten the theories they have learnt.

According to the discussion had with the principal based on the qualifications of the teachers, all the graduate teachers in the primary school do not hold any qualification in child psychology. Therefore there is a need for a Child Psychology course for the teachers which is not currently available in the school.

1.3 Motivation

As explained in the previous section there is a requirement for a course on Child Psychology for the teachers. If they are having adequate knowledge on child psychology, most of the unpleasant situations arise at school can be controlled effectively.

To improve the knowledge on child psychology of the teachers following methods can be used.

- School can conduct face to face course.
- Teachers can attend the institutes which conduct such courses.
- Teachers can follow online courses currently available in internet.

Following section describes the pros and cons of above three options.

1.3.1 Alternative Methods of learning child psychology, their advantages and disadvantages

1.3.1.1 Conducting face to face child psychology course at school

If the school conducts such course, there are several advantages and disadvantages.

Advantages

- If the learners have difficulties they can immediately ask the lecturer.
- Since group of learners are attending, learners will not be bored and motivated.

Disadvantages

- Since a lecturer specialized in child psychology is not currently available at the school, a lecturer should be hired. More than one day training program should be arranged to cover the modules. A higher fee may be paid for them.
- During school hours additional classes cannot be conducted for the teachers, as it affects the teaching and learning hours which leads to several problems.
- If after school, weekend or vacation classes are arranged, most of the teachers will not be able to attend, since staff meetings, most co-curricular activities and sports practices are happening after school, week end or during the vacation or teachers may be busy with their personal work.

Since disadvantages are higher than the advantages, there are risks in implementing the above option.

1.3.1.2 Encouraging teachers to attend child psychology courses conducted by institutes

Face to face classes are conducted by the institutes such as Lyceum Academy for Teacher Training, Gateway Graduate School, American College for Higher Education and etc.

Advantages

- Teachers can clear the doubts immediately.
- Since there is a group of learners, they will be motivated, can share their ideas.
- Teachers may get individual attention.

Disadvantages

- Most of the institutes are located in Colombo, since all most all the teachers live in Gampaha area, they have to spend considerable amount of time and money for traveling.
- They have to bear the course fee since the school do not sponsor for such courses.
- Most of the graduate teachers focusing in improving their subject knowledge by doing Masters degrees rather than child psychology courses, they pay less attention for this subject which is most important for the school.

- All the institutes mentioned above do not have a lesson called mental disorders of children and the support should be given by the teachers for such children, which is a main requirement of the principal and the school management.

In this option also disadvantages are higher than the advantages and it will be difficult for the school to use this method.

1.3.1.3 Encouraging teachers to follow online course on child psychology.

There are two types of child psychology courses available in internet.

1. Free online courses
2. Paid online courses

1.3.1.3.1 Following free online courses

Advantages

- They are free of charge.
- No commuting time and no money should be spent for travelling.
- Flexible learning schedules.

Disadvantages

- There are few courses available.
- Most of the courses have short duration (8 hours or 5 hours) and short content, all the required topics do not cover in one course. Teachers may have to follow several courses.
- They are not very interactive, text based information with few pictures are used in most courses, in one course only one sound clip is used.
- Lack of collaborative learning methods such as chatting and forums which are useful methods in online learning to motivate and share the knowledge with the learners.
- Evaluation methods such as tests and assessments are not used in all the courses.
- Any of the free courses do not contain the topic mental disorders of children which is a most important topic for the teachers.

Implementing the above method is also not beneficial since the drawbacks are higher than the benefits.

1.3.1.3.2 Following paid online courses

Advantages

- Cover broad subject areas.
- Teachers can gain qualifications such as diploma or degree level.
- Interactive learning methods.

Disadvantages

- These courses are very expensive, which is difficult to bear by the all the teachers in pre-primary and primary school.
- Some courses have long durations such as four years. E.g. Open University of UK.

Since the problem of paying very high course fee, this method also cannot be implemented.

- **Details of the courses currently available are in Appendix 01**

To overcome the difficulties mentioned above, the best solution is to develop an online course on child psychology for the teachers to follow free of charge. It can be accessed from anywhere and at any time by the teachers without affecting school or personal work.

1.3.2 Advantages of developing an eLearning course on child psychology to be followed by the teachers

Needs assessment was conducted to see whether the eLearning course will fill the performance gap of the learners (teachers) and to gather characteristics of them such as age, gender, experience, teachers' knowledge on child psychology.

Needs analysis helps to design eLearning course to satisfy the requirements of the principal and the management of the Regent International College, which is to fill the knowledge gap on Child Psychology of pre- primary and primary school teachers.

It also helps to understand application environment of the course, types of jobs teachers perform and their job tasks to decide the course content. Course content will have a topic specifically

requested by the principal and the school management “Mental disorders of the children and how the teachers should engage them in activities by avoiding punishments”.

eLearning course will present content in different formats such as text, image, audio and video. It will also contain interactive activities, chatting facilities and forums as well, this will cater learners with different learning styles and engage them in learning process, increase attention and motivate them to follow the course.

It has other benefits such as cost saving option for the management (design and development are done by me as the final year project of MIT-eLearning by working with subject matter experts). Teachers can use flexible schedules to follow the course without affecting their school and family life and save commuting time and money since the course is totally free.

If the teachers use other methods discussed earlier in this chapter to learn child psychology, they will not get all the benefits mentioned above, because the courses are not developed specifically targeting the teachers of the school, therefore developing an eLearning course internally is the best option.

1.4 Goals, Objectives and the scope of the project

1.4.1 Project goals

- Improve the performance of the teachers in the pre-primary and primary school by enhancing the knowledge on Child Psychology without affecting their personal and school work.

1.4.2 Project Objectives

To achieve the project goals following objectives should be met.

- Make comprehensive curriculum with the content including most suitable topics for the teachers of the pre-primary and the primary school.
- Make eLearning course on child psychology to be followed by the pre-primary school and the primary school teachers including mental disorders of children (description, symptoms, causes and how to help such children)

- Develop interactive learning environment which enables them to discuss the problems related to the topic.
- Measuring progress of the teachers by doing pre-test, assessments and post-test.

1.4.3 Scope

- Moodle will be used as the Learning Management System.
- Design a curriculum including the following topics,
 - Developmental stages of a child
 - Theories related to child psychology
 - Factors affecting the emotional health and the well-being of the children
 - Mental disorders of the children in the age group of 2 to 11 years, their symptoms and how to support such children by avoiding punishments
 - Teacher's concerns.
- Since the course is developed for the pre-primary school and the primary school teachers, course will include the mental disorders of the children in the age group of 2 to 11.
- Course will include interactive content, audio and video which attracts and engage the learners, interactive activities (quizzes) and the assignments.
- Doing an introductory session for the teachers about the course.

1.4.4 Out of Scope

eLearning course does not cover the mental disorders of the children in the age group of 12 to 20 (middle and upper school), because the mental disorders in that age group are different from the primary school children. As future development this can be considered.

1.5 Feasibility study

Feasibility study is conducted to test how beneficial and practical the development of the eLearning course to the school. There are three feasibilities to be discussed such as technical, economical and operational.

1.5.1 Technical Feasibility

Technical feasibility is carried out to see whether the technology and the expertise to use the technology are available in developing and learning environments.

When developing the course

To develop the course existing hardware can be used and no additional hardware required. As software Moodle LMS, audio editing, video editing and image editing software which can be easily found will be used. The developer has adequate knowledge on handling such software.

When following the course

Currently the school is having a server and pcs with internet connection. According to the survey conducted all the teachers are having PCS or laptops with internet connection with required bandwidth at home. No additional hardware components are required to follow the course.

Easily found software such as web browsers, Adobe Flash player will be needed to follow the course. In addition to the software mentioned above needed to follow the course, they will be provided with installation steps in the use manual.

Developer of the course will do the hosting of the LMS.

By considering above we can say that the proposed course is technically feasible.

1.5.2 Economical Feasibility

Economical feasibility is carried out to measure the cost effectiveness of the eLearning course.

To develop the course existing hardware and software such as Moodle LMS, audio, video and image editing software freely downloadable from the internet will be used. Only the hosting fee of the course should be spent by the school.

Since the course is developed as the final year project of the developer, development cost should not be bearable by the school.

To test whether the teachers have achieved expected learning outcomes, posttest will be done at the end of the course, when teachers gain the knowledge it will improve their performance and

will lead to produce the students with good emotional health and better results, which can be a long term benefit for the school, which increases the number of students.

Costs for the project

- Electricity and Internet usage: Rs. 40,000/= , bared by the developer not a cost for the school
- Web site hosting fee will be barred by the school.

By considering the above we can say that the project is economically feasible.

1.5.3 Operational Feasibility

Operational feasibility is a measure of how well a specific solution will work in the organization. Since the system is a web based LMS, the teachers can access it from anywhere and at any time. Content will be prepared by consulting Child Psychiatrists, Psychology Degree holders and by referring valid sources such as ” Diagnostic and statistical manual of mental disorders Version 5” published by American Psychiatrist Association and the web site Royal College of Psychiatrists. According to the discussions had with the management of the school and the principal they are willing to accept the course. According to the survey done, all the learners have followed ICT courses and know how to operate a computer and use internet as well as they are willing to follow the eLearning course on child psychology.

Since this is a new learning experience for the teachers (Learning through web based LMS), comprehensive user manual, online as well as paper based will be provided to the learners as a guide to use the LMS. Free training session will be conducted by the developer for the teachers to get familiar with the course.

Security features of Moodle will be used to minimize security threats to the LMS which makes continuous learning environment without failures.

By considering the above we can say that the eLearning course is operationally feasible.

1.6 Project Deliverables

After developing the eLearning course the following will be delivered.

- Syllabus and teaching and learning materials.
- eLearning course on child psychology.
- User manual.
- Project dissertation.

1.7 Outline of the dissertation

Chapter 1: Introduction

This chapter describes the introduction to the project, motivation, project goals, objectives and the scope.

Chapter 2: Background

Chapter 2 describes the background of the project, literature review, theoretical perspectives, ISD and ID models used to develop the course.

Chapter 3: Analysis

This chapter describes the needs analysis including learner analysis, work setting analysis and content analysis.

Chapter 4: Design

Chapter 4 discusses the design issues considered when designing the course, course maps and the storyboards.

Chapter 5: Development and Implementation

Chapter 5 discusses the development tools used and how the course was implemented.

Chapter 6: Evaluation

This chapter describes how the course was evaluated including analysis results.

Chapter 7: Conclusion and Future Work

In this chapter conclusion and the future work to be carried out are discussed.

Chapter2: Background

This chapter first discusses the literature I have gone through to start designing the course. Further the chapter discusses the details of online courses currently available, lessons learnt by studying online courses, adult learning method to be used in the proposed course, writing course objectives, instructional system design model and instructional design model to be used to design the eLearning course.

2.1 Literature Review

[1] states that childhood experiences affect the mental health of adults, therefore helping children with mental disorders is important.

[3] states that the emotional health is vital for a child and identification of them is also important.

[4] *“Some of the children who develop adequate speech can be incorporated into normal schools for inclusive education. It is better for these children to be educated by teachers who have some ideas on how to engage them and use skills that are beneficial for these children. It is best not to have these children in special schools as these schools do not provide the child with adequate social skills training with peer interactions.”*

[5] *“All adults have the capacity to love and care for and guide children under their care. But it is also true that some caregivers do this more than others and the reasons for this are many: extreme poverty, stress of daily living, ill health, depression or other emotional problems – to name just a few. In some cases it can simply be a lack of awareness and understanding of the need for such care. Through intervention, one hopes to reactivate such capabilities if they are dormant or to encourage the caregivers to improve the quality of their care giving by providing them with some guidance and motivation.”*

[6] *“Making available health education materials in formats that are easily accessible to people with developmental disorders; - empowering people with developmental disorders and their families; - improving knowledge and change attitude of care providers.”*

[20] *“Many people would recognize a basic e-learning course as a slide based online activity that contains simple navigation buttons (such as “next” and “back” buttons) and incorporates quizzes with true-false or multiple-choice questions. But not all e-learning courses share the same thumbprint. For example, an e-learning course could be a software simulation that demonstrates the click path through an application, or it could be a very interactive course that features role-playing and complex decision-making.”*

[20] *“Typically, the most engaging e-learning is interactive. Rather than being a passive experience, where the learner just soaks in knowledge through reading or viewing content, interactive e-learning requires learners to be intimately involved. They click or touch the screen. They drag content from one place to the next. They make choices that impact what other content they see. Interactive e-learning may incorporate critical-thinking activities such as games, quizzes, and decision-making scenarios that encourage learners to explore the consequences of their choices in a safe way.”*

[20] *“The most effective e-learning captures a learner’s interest and attention, engaging them in a real way so that they actually digest the material. That’s why many e-learning courses include animation, audio, and video—creating a multimodal, immersive, and effective learning experience.”*

“No matter what e-learning looks like, it will generally fall into one of two categories: information-based or performance-based. Information based courses are just that—they are packed with info a company needs to share with employees, often to comply with regulatory requirements.”

[20] *“Information-based courses are designed to increase awareness or certify understanding, not change behavior. E-learning that’s about a new company policy or an annual compliance course are good examples of information-based courses.”*

“On the other hand, performance-based courses seek to change behavior, such as applying a new skill on the job. These kinds of courses can drive measurable results that make a real impact

on the business. For instance, when a support person learns how to respond effectively to an irate customer, it can boost customer satisfaction and retention rates.”

2.2 Review of similar online courses on Child Psychology/Mental Disorders

Similar online courses currently available in internet were studied in order to understand the syllabuses and the designs. Detailed syllabuses of the following courses are in Appendix 01.

Paid courses

Course 1:

Developmental, Learning and Behavioural Disorders in Children and Adolescents [21]

Advantages

It covers the important topics like nature and scope of developmental disorders and seven psychological disorders of the children, symptoms, treatment and support. Duration is 100 hours.

Disadvantages

But it does not provide the background knowledge to the learner such as the developmental stages of a child, factors affecting the emotional well-being of children and teachers' concerns. High Course fee: \$646.

Course 2:

Online Course: Child Psychology101[22]

Advantages

This course covers a broad area like Definition of child psychology, Concept of childhood, Biological factors in Child Psychology, Theories related to the Child Psychology, Developmental stages of children. Since this is a paid course, how they present the content, cannot be mentioned, trial periods are also not given to register and see the course. Another important fact is that this course can be followed in Android and IOS platforms.

Disadvantages

A disadvantage is the course fee \$50 without certification and \$75 with certification.

Course 3:

ADHD Awareness course [23]

Free online courses

Course 1:

Introduction to Child Psychology by The Open University UK [24]

Advantages

It covers some important topics such as,

1. What is child psychology?
2. Theories to understand the development of children
3. Child Psychology in applied settings.

Disadvantages

This course has very short content, it does not discuss about the mental disorders, symptoms and engaging such children in activities, handling them in the class room without punishments, which are main requirements for the course to be developed.

Duration of the course is eight hours, information are given in text format with few images, only one sound clip is used. No evaluation methods are used.

Course 2:

AUTISM SPECTRUM DISORDERS[25]

Course is made using Adobe Captivate. It includes the features of autistic children with the heading and a picture, but no details. Can use the course to get an idea about autism. Cause does not include and how to support such children in the class room.

Step 2: Click here to watch the presentation (18 minutes)
 Please spend at least 15 uninterrupted minutes on this presentation page.

Slide 11 of 23

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Figure 2.1:Autism Spectrum Disorders Course – Design 1

Step 2: Click here to watch the presentation (18 minutes)
 Please spend at least 15 uninterrupted minutes on this presentation page.

Diagnosis for ASD

Stereotypical, repetitive movements

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Figure 2.2:Autism Spectrum Disorders Course – Design 2

Course 3:

ADHD eLearning courses - ADHD Continuum [26]

Course can be followed only by the health care professionals managing patients with ADHD.

It covers the topic management of ADHD in children and adolescents. According to the details provided in the web site, course includes images, audio and videos integrated with **interactive case studies and activities**.

2.1.3 Lessons learned from existing courses

By studying the existing courses mentioned above it was easy for me to get an understanding about the topics related to child psychology such as mental disorders of children, the structure of that topic (explanation about the disorder, symptoms, identification of children suffering from that disorder, causes and support), major theories related to child psychology, comparison of such theories.

2.3 eLearning

2.2.1 Method of teaching

Since the target learners are adults (teachers of the school), the way they learn differ from the students. Therefore adults teaching method and pedagogy is used when designing the course.

Six assumptions in andragogy.

1. Learners need to know why they learn
2. Learners' self-concept
3. Learners' experience
4. Readiness to learn
5. Orientation to learning
6. Motivation to learn.

When designing the course, above assumptions should be considered, such as benefits of following the course should be clearly displayed before starting the course. Since adult learners are autonomous, they should be encouraged

throughout the course by guiding them and giving resources to find their own pace of learning.

Adult learners acquire new knowledge build upon existing knowledge or experience much more effectively. Therefore needs assessment and analysis is conducted to identify the learners experience in teaching, knowledge on child psychology, capability of handling a computer and use internet. By considering the above course can be designed with most suitable content.

The activities should be related to their experience, since all the teachers are having experience in handling problematic children, by giving them simulated class room environments which are related to them will help them to relate their experience to construct the new knowledge.

By using collaborative facilities available in Moodle such as chatting and Forums learners can share the problems and the knowledge they are having.

It is important to give them reflective activities and group projects related to actual class room environment, they will be encouraged to do the activities, and will know the importance of doing.

2.2.2 Writing Course Objectives

Using constructive alignment and Bloom's Taxonomy better course objectives can be written, according to the learning outcomes, selection of suitable teaching methods and the assessments can be done.

2.2.2.1 Constructive Alignment

Constructive alignment is a principle used to plan teaching and learning activities. Three decisions are taken:

1. First the learning outcomes should be found.
2. Then, to achieve the learning outcomes, what teaching methods should be used is determined

3. Last, the assessment tasks suitable to achieve the learning outcomes should be designed.

2.2.2.2 Blooms Taxonomy and the domains of learning

Blooms taxonomy can be used when writing the learning outcomes. Rather than just remembering facts, learners can analyze and evaluate concepts, procedures and principles.

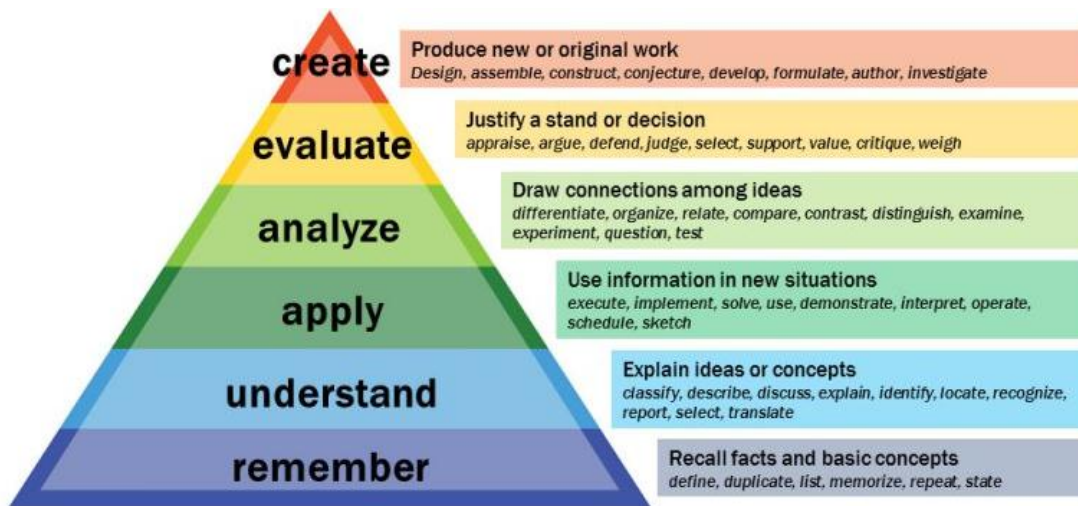


Figure 2.3 Bloom's Taxonomy [9]

Domains of learning

Since the eLearning course should improve the knowledge and intellectual skills (cognitive domain) and the attitudes of the teachers (affective domain), When writing learning outcomes these two domains are considered. Activities will be arranged from simple to complex.

2.2.3 Learning Theory

Constructivism will be used as the teachers should construct their knowledge by learning the concepts through activities and case studies. It makes connections between facts and fastening new understanding in the learners. It promotes interactions between learners where they can share their problems and

knowledge. Since it is an eLearning course, which can be followed at anytime from anywhere, learner autonomy is given.

2.2.4 Learning methods

Collaborative learning

Activities range from chatting and forums are used for online collaboration of the learners. They can motivate and prevent the learners from feeling isolated in the eLearning environment.

2.4 Instructional System Design Model

ISD model is used to develop the instructional solution. There are several ISD models used in eLearning world, by considering the useful features ADDIE model, it was selected to design and develop the course.

There are five stages in ADDIE model,

- Analysis Phase
- Design
- Development
- Implementation
- Evaluation

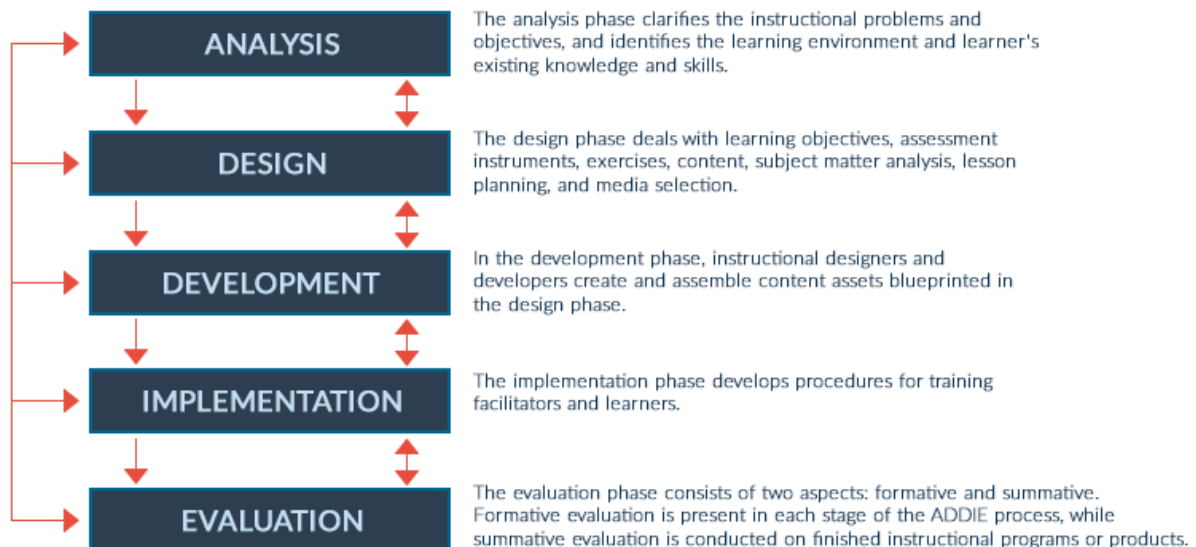


Figure 2.4 ADDIE Model [10]

Analysis Phase

In this phase the learning problem and the target audience are identified. Characteristics of the audience, their current knowledge level about the topic, their new skill level after following the course, and their limitations/constraints, how they perform the tasks at present are also identified. By considering the target audience and the views of the subject matter experts goals and the objectives of the online course are set. Learning environment, technological constraints, course delivery method, primary guide for the syllabus, cost estimation and the time-line for the project are also considered.

In the analysis phase needs assessment and analysis are conducted to determine the above mentioned characteristics. There are several stages such as Learner analysis, Work setting analysis, job, task and content analysis.

Design Phase

Completing the syllabus, identifying performance and learning objectives, lesson planning, course content design, selection of assessment criteria are done in this phase. It identifies the structure and the learning steps required to perform the task from easiest to most difficult. In this phase implementation and evaluation costs are also reviewed.

Top level and detailed course maps and storyboards are created for each chapter of the course. The layout of a course is also designed, including the descriptions of the main topics the course will cover and goals it sets out to achieve, as well as short descriptions of pages' contents and a general idea of what the navigation and the user interface will look like.

According to the course format, mode of delivery and the content, course duration is decided.

Tools to be used for the development are also decided.

Development phase

Based on the design, it selects the delivery method for the audience. Learning materials, aids and instructional courseware are developed in appropriate format such as text, audio and video and ready to be tested. It validates the materials developed to ensure whether it meets all the goals

and objectives. Trainer guides, learner guides, job aids and participant resources are also developed in this phase.

Implementation phase

Developed course on Child Psychology is presented to the learners. This is the phase where the developed course is actually put into action, and the final product, developed based on needs and errors discovered. As the platform to implement the course Moodle LMS will be used.

Evaluation phase

Feedback received from the learners in the implementation phase are considered and measures reaction, identifies whether there are working or not working components, determines the effectiveness and the quality of the delivery.

It validates whether the course meets its objectives and the course materials are useful. This identifies the obstacles may have emerged. Then by making revisions, adjustments and corrections as needed improvements can be done.

2.5 Instructional Design Model

Instructional design model supports designing the learning process. This is used in Analysis and the Design phase of the ISD model. By comparing the features of several ID models available, Robert Gagné's Nine Steps of Instruction is selected to design the learning process.



Figure 2.5: Robert Gagné's Nine Steps of Instruction

1. Gain attention

In this step something interesting which stimulates the learners should be provided to grab their attention.

Before starting a lesson, by giving motivational activity or video clip this can be done.

2. Provide learning objectives

Clear objectives of the course should be provided to the learners before starting the course, they will understand what they are going to learn in the course and get an idea about overall picture of the course.

3. Stimulate recall of prior knowledge

Relate the new information to something they already know or experienced.

Retrieval practice

Practice tests help the learners to recall the reconstruct previous knowledge.

Scaffolding

Scaffolding include four steps,

- a. Start by building on what the learners already know
 - b. Add more details and information over a period of time
 - c. Allowing the learners to perform on their own
 - d. Afterwards, the fading process begins by slowly removing the support in order to give the learners more responsibility.
4. Present the material
In this step activities are sequenced and chunked in meaningful way, learners will find it easy to understand the information. Learners get the feedback on individual tasks.
 5. Provide guidance for learning
Learners are guided on how to learn the skills. This helps the learners to learn the required skills.
 6. Elicit performance (Practice)
Giving different types of activities for the learners to test the gained (new) knowledge.
 7. Provide feedback
Providing a test, quiz or constructive feedback to the learner to improve their knowledge.
 8. Assess performance
Evaluate learners' performance to test whether they have achieved the expected learning outcomes and provide progress information.
 9. Enhance retention and transfer to the job
Informs learners about similar problems and provide them additional practice to expertise the subject.

Chapter3: Analysis

In order to design effective eLearning course existing environment should be analysed. This chapter discusses learner analysis (demographic characteristics of the learners, jobs they perform), environment of the course to be implemented and to make the new syllabus. In the analysis phase requirements of the new course are identified and prioritized.

3.1 Instructional System Design Model

ADDIE model is used as the instructional system design model to develop the eLearning course on Child Psychology. There are five phases of ADDIE model,

- Analysis
- Design
- Development
- Implementation
- Evaluation

Needs assessment is conducted in the analysis phase of the ADDIE model, to identify the performance gap, causes for it and the requirements of the new course.

3.2 Need assessment and need analysis

3.2.1 Conducting Needs Assessment

According to the performance problem, situation specific needs assessment was conducted, since this problem mainly affects the part of the teaching staff (Pre-Primary and Primary school) of the school. There are seven stages in conducting needs assessment. They are,

1. Identifying the objectives

In this phase causes for the performance problem are identified:

- Teachers' knowledge on child psychology, mental disorders of children and ability to use internet to follow an eLearning course.
- The content of the proposed eLearning course, (what teachers must know, do or feel to overcome performance problem.)

- The knowledge, skills and attitudes necessary to be built on the teachers after following the course.

2. Selecting Target audience

Performers

Target audience of the proposed course will be the teaching staff of pre-primary and primary school, needs of them will be identified in order to design the course with most relevant topics.

Decision Makers

Principal, Vice Principal selected the pre-primary school and the primary school teachers as the audience for the course. They will be the decision makers and they also will be incorporated in needs analysis.

3. Sampling Procedures

Since there is less number of teachers, 32 in the two sections, all the teachers were taken for the needs assessment without using a sampling method. Principal, Vice Principal and the sectional head teachers were also selected since they are the decision makers.

4. Data Collection Methods

To identify the current situation and the expectation of the new course, two data collection methods: questionnaires and interviews were selected.

All the teachers of the two sections were given a questionnaire and the decision makers were interviewed. Child psychiatrists and psychology graduates were contacted as resource personals. (**Questionnaire, Appendix 02**)

5. Specification for instruments and protocols

Questionnaires were prepared to gather relevant information and interview guides were prepared to conduct effective interviews.

To make questionnaire on psychology, referred the questionnaires available [27]

To make questionnaire on computer literacy, referred the questionnaires available [28]

6. Methods of data analysis

Qualitative data collected through interviews and questionnaires were analyzed by using descriptive data analysis, as ICT tool MS Excel was used for it.

7. How decisions were made on the data

Based on the descriptive data analysis, decisions should be made regarding course design. They are explained in detail in the following chapters.

3.2.2 Needs Analysis

Following analysis was done under needs analysis.

- Learner analysis
- Work setting analysis
- Work analysis
 - Job analysis
 - Task analysis
 - Content analysis

3.2.2.1 Learner Analysis

Target audience of the course is the teachers, but all the teachers are not alike, there are several ways they differ. Therefore it is very important to know the learner characteristics in order to satisfy all. Target population (no. of learners) of the course is 32.

There are three types of learner categories. They are Situation related, decision related and learner related learner characteristics.

- Situation related learner characteristics – most of the pre-primary school and the primary school teachers are affected by the problem, not having adequate knowledge on child psychology to handle children.
- Decision related learner characteristics – principal, vice principal and the management decided the pre-primary school and the primary school teachers as the learners of the course.
- Learner related learner characteristics – there are two types
 - Prerequisite knowledge, skills and attitudes

- Other characteristics
 - Demographic characteristics (age, gender, race)
 - Physiological characteristics (physical disabilities)
 - Aptitudes (whether they like to learn)
 - Experience (experience in career)

Results of needs analysis [Appendix 03]

Following decisions were made after conducting needs analysis.

- **Previous Knowledge**

Teachers are having different levels of knowledge in child psychology. Some teachers have done Diploma in Psychology, Certificate Course in Psychology, child psychology as a subject in teaching diplomas and there are teachers who do not possess any qualification in child psychology.

3.2.2.1.1 Decisions made after conducting learner analysis

- All the learners are Srilankan Sinhala teachers. They are conversant in English. Decision: Course can be designed using English medium. It should be suitable for srilankan culture.
- There are teachers having different knowledge levels in child psychology from the beginners to diploma levels.
Decision: Course should cater for all the learners mentioned above. E.g. It should include the topics which the diploma holders have not done before and easy to be followed by the beginners.
- Most of the teachers 50% are in the age group of 20 – 30. 90% of the teachers are females.
Decision: Teacher can be in any gender and in the age group of 20 to 60, Therefore course is designed to satisfy the teachers in all ages and in any gender.
- No physical disabilities among the learners

Decision: Special data input or output methods are not required.

- All can use computer and internet without difficulty. But some teachers do not know the usage of web browsers, hyperlinks, difference between website and web page. No one has done an online course before.

Decision: Training should be provided for them to follow the course.

3.2.2.2 Work setting analysis

Work setting analysis is conducted to identify the course delivery and the application environment.

- Course Delivery environment

Learners can follow the course from their homes, during any time.

- Course Application environment

Teachers should be able to apply the knowledge gained in their class room environments.

3.2.2.2.1 Decisions made after conducting work setting analysis

- Learners can follow the course from their homes, during any time.

Decision: Interactive lessons, assignments and quizzes should be given to motivate them.

Collaborative learning methods such as chatting facilities, forum discussions should be used to share their problems and knowledge.

In order to pass the course all the activities should be done within 6 months' time. Since this is an online course, learner behavior is not very important, but they should be educated in netiquette.

In addition to training, an online help facility should be provided for them to follow the course without difficulty.

- Teachers should be able to apply the knowledge gained in their class room environments.

Decision: When designing activities and assignments application of them in the classroom should be considered.

3.2.2.3 Work analysis

Work analysis is done in three stages, they are job analysis, task analysis and content analysis.

3.1.2.3.1 Job analysis

Focus on what the learners do, how they do it, what are the expected results. This is a starting point for content analysis.

All the learners main responsibility is teaching. Following were extracted from Job descriptions available at the school and by interviewing the principal, vice principal and the sectional head teachers.

Overall Responsibilities of a teacher

- To teach and educate students according to guidelines provided by the Curriculum Framework under the overall guidance of the subject head.
- To teach and educate students according to the educational needs, abilities and attainment potential of individual students entrusted to his/her care by the Head of School or Head of Unit.

3.2.2.3.2 Task analysis

To perform the teaching responsibilities they have to follow the tasks such as lesson planning, teaching according to the educational needs and abilities of the students.

3.2.2.3.3 Decisions made after conducting job and task analysis

New course should improve the performance of the teachers, it should contain the topics to help teachers to understand children in different knowledge levels and having different mental capabilities, reasons for them and to change teaching methods accordingly.

3.2.2.3.4 Content analysis

Since there is no such course currently conducted at the school, syllabus has to be designed from scratch.

Content analysis was conducted to select the most relevant course topics and the content for the new course. Subject matter experts (child psychiatrist, psychology degree holder) and the principal of the school helped for it. Referred sources mentioned by them DSM V and the web site

of Royal College of Psychiatrists [29]. Online courses currently available on psychology and child psychology were also studied.

By getting the views of the subject matter experts and the principal and the decisions made after needs analysis, it was decided to include following topics in the syllabus.

Lesson 1 - Child Development

Child development is one of the biggest contributing factors to child behavior. As children go through their different stages of life, they approach learning in different ways. When the teachers have an understanding of child development, he or she can use it for suitable teaching methodologies.

Lesson 2 –Major theories on child psychology

Today we are having complex education system. It is difficult to use single learning approach or style that works for every student. Major theories of child psychology help to identify different learning styles of the students.

Lesson 3 - Factors affecting the Emotional Health and well-being of Children.

Knowledge on emotional health and well-being of children, and the factors affecting them are important for teaches, they can understand the reasons for misbehaviors of the children and make effective teaching learning environment in classroom.

Lesson 4 - Mental Disorders of Children

Mental disorders are explained under the following sub topics. Mental disorder, symptoms, causes for them and how to help children suffering from a mental disorder.

After need analysis, only 20% of the teachers have done psychological disorders of the children and their symptoms, 50% of the teachers requested to include how to handle such children the class room environment.

Lesson 5- Teachers' concerns

When conducting need analysis it was found that 30% of teachers requested to include anger management in new course. To improve the qualities of the teachers following sub topics were included, teacher's role and the qualities to be improved which helps to handle children.

3.3SWOT Analysis

To understand the internal and external factors that will affect the eLearning course to be developed, SWOT analysis was done.

Strengths	Weaknesses
<ul style="list-style-type: none"> • Flexible way of delivering training. • Satisfactory level of computer and internet usage of the learners. • Increments will be given, those who completed the course. • Different ICT tools and resources are available to develop and follow the course. • Developer’s experience as a teacher. 	<ul style="list-style-type: none"> • Learners have to bear the internet fee. • Developer has to learn some tools • Adult learners have been used to traditional learning methods. • Learners are not familiar with LMS.
Opportunities	Threats
<ul style="list-style-type: none"> • New learning experience for the learners. • To be the first school to use eLearning course on child psychology. • Can use in school promotions. • Improve the performance of teachers, helps to improve students. 	<ul style="list-style-type: none"> • Other institutes start eLearning courses on child psychology. • Hacking. • Increase of telecommunication levy.

Table 3.1: SWOT Analysis

Chapter 4: Design

This chapter contains the details of course design. Outline of the syllabus, learning outcomes, course maps, storyboards and design considerations are explained.

Based on the requirements identified in analysis phase, course design was done. Instructional design model “Gagne’s nine steps of instruction” was used to design the course.

4.1 Syllabus

Outline of the syllabus

Topic	Hours
1 - Mental Disorders of Children	20
2- Teachers’ concerns	05
	25
Total hours for learning	25

Table 4.1: Outline of the Syllabus

Learners will have to do Pre-test before starting the course. This will be given as MCQs. It is used to measure the current knowledge of the teachers on mental health and mental disorders. After completing the course Post-Test is given to measure the knowledge of teachers on mental disorders.

Lesson 1: Mental Disorders of Children (20 hours)

Instructional Objectives

- Describe what a mental disorder is.
- Describe the importance of mental health.
- Describe the causes for the mental disorders.
- List five basic types of mental disorders.
- List seven common mental disorders among children in the age group of 2 to 11.
- List the symptoms of each mental disorder mentioned above.
- Compare the symptoms learnt and actual behavior of such children.
- Make support activities to handle children with mental disorders.

Lesson 1

1.1 Mental health

- 1.1.1 What is mental illness?
- 1.1.2 Important facts about mental illness.
- 1.1.3 Effects of good mental health
- 1.1.4 Who gets mental illness?
- 1.1.5 Forms of mental illnesses
- 1.1.6 Myths about mental illnesses
- 1.1.7 Causes of mental illnesses
- 1.1.8 Diagnosing and treating mental illnesses
- 1.1.9 Quiz on Mental Health

1.2 Types of Mental Disorders

- 1.2.1 Neurodevelopmental disorders
- 1.2.2 Mood disorders
- 1.2.3 Externalizing disorders
- 1.2.4 Anxiety disorders
- 1.2.5 Learning disorders

1.3 Mental disorders common in primary school children

1.3.1 Autism Spectrum Disorder

1.3.1.1 What is autism spectrum disorder?

1.3.1.2 Symptoms of autism spectrum disorder

1.3.1.3 Causes for autism spectrum disorder

1.3.1.4 Helping strategies to handle children with autism spectrum disorder

1.3.2 Attention Deficit Hyperactivity Disorder

1.3.2.1 What is Attention Deficit Hyperactivity Disorder

1.3.2.2 Symptoms of Attention Deficit Hyperactivity Disorder

1.3.2.3 Causes for Attention Deficit Hyperactivity Disorder

1.3.2.4 Helping strategies to handle children with Attention Deficit Hyperactivity Disorder

1.3.3 Conduct disorder

1.3.3.1 What is Conduct disorder?

1.3.3.2 Symptoms of Conduct disorder

1.3.3.3 Causes for Conduct disorder

1.3.3.4 Helping strategies to handle children with Conduct disorder

1.3.4 Dyslexia

1.3.4.1 What is Dyslexia?

1.3.4.2 Symptoms of Dyslexia

1.3.4.3 Causes for Dyslexia

1.3.4.4 Helping strategies to handle children with Dyslexia

1.3.5 Dyscalculia

1.3.5.1 What is Dyscalculia?

1.3.5.2 Symptoms of Dyscalculia

1.3.5.3 Causes for Dyscalculia

1.3.5.4 Helping strategies to handle children with Dyscalculia

1.3.6 Childhood depression

1.3.6.1 What is Childhood depression?

1.3.6.2 Symptoms of Childhood depression

1.3.6.3 Causes for Childhood depression

1.3.6.4 Helping strategies to handle children with Childhood depression

1.3.7 Obsessive Compulsive Disorder

1.3.7.1 What is Obsessive Compulsive Disorder?

1.3.7.2 Symptoms of Obsessive Compulsive Disorder

1.3.7.3 Causes for Obsessive Compulsive Disorder

1.3.7.4 Helping strategies to handle children with Childhood depression

Lesson 2: Teachers' concerns (05 hours)

Instructional Objectives

- Describe the role of the teacher in the class room.
- Identify the skills to be developed in teachers to help children.
- Describe other concerns which can be used to improve emotional health and well-being of children.

Lesson 2

2.1 Teacher's Role

2.2 Skills to be developed in teachers

- 2.2.1 Anger management
- 2.2.2 Empathy
- 2.2.3 Understanding
- 2.2.4 Relationship with the students

2.3 Other concerns

- 2.3.1 Design meal plans for children
- 2.3.2 Encourage to do Co-Curricular Activities

4.2 Course Maps

Level1Course Map

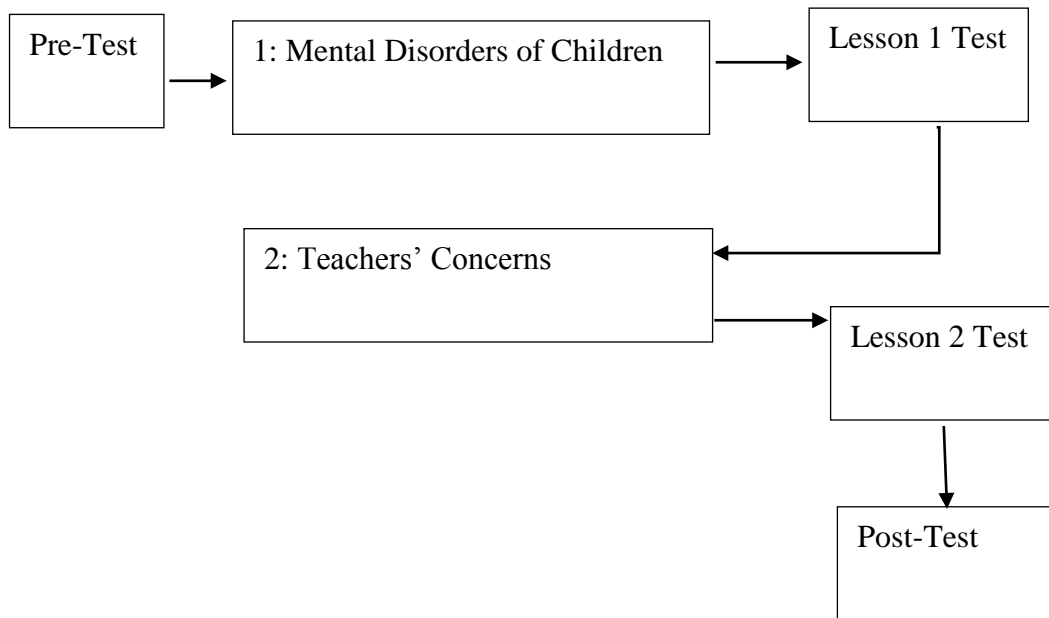


Figure 4.1 – Level 1 Course Map for the Course

Level 2 Course Map for Lesson 1

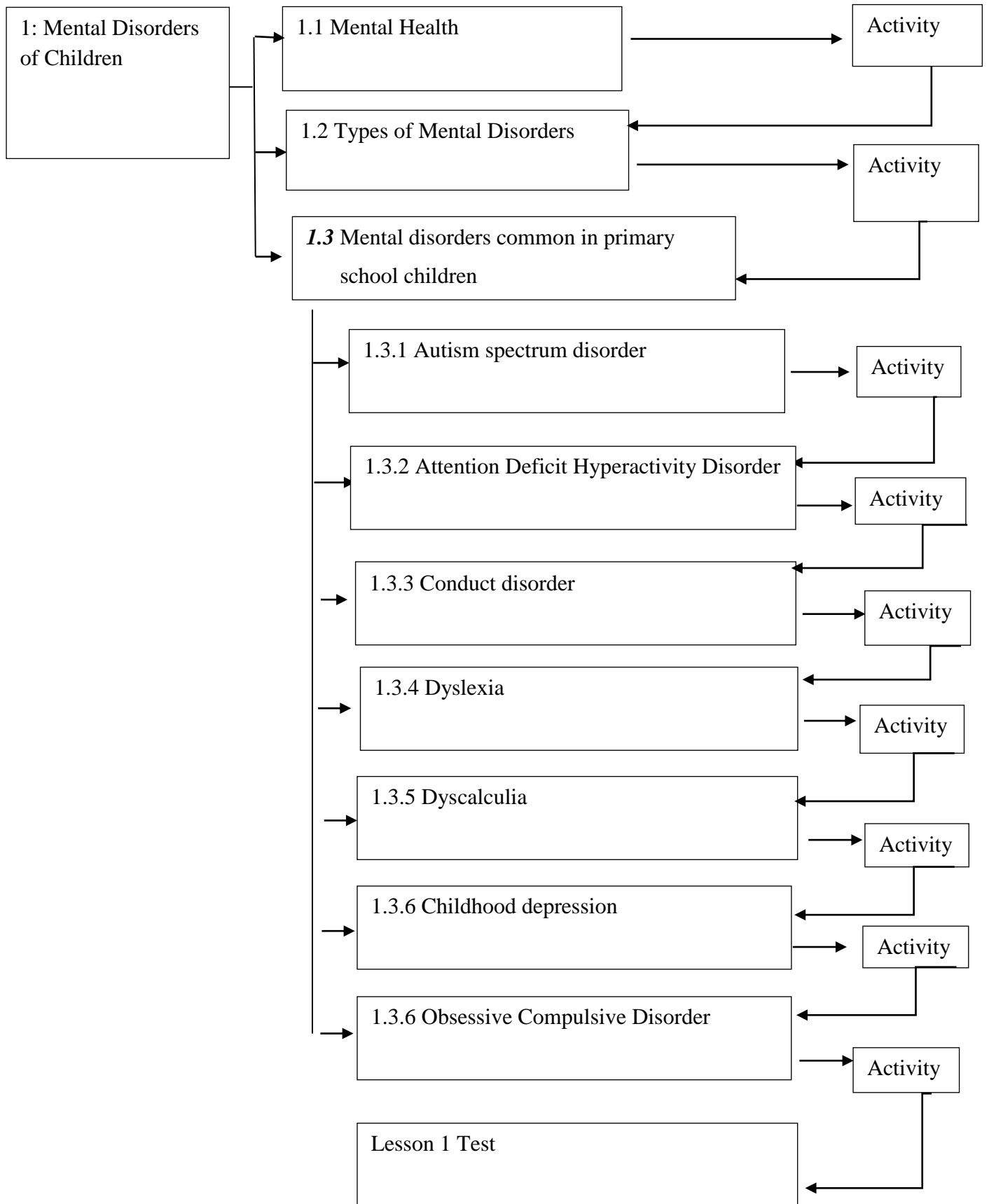


Figure 4.2: Level 2 Course Map for Lesson 1

Level 2 Course Map for Lesson 2

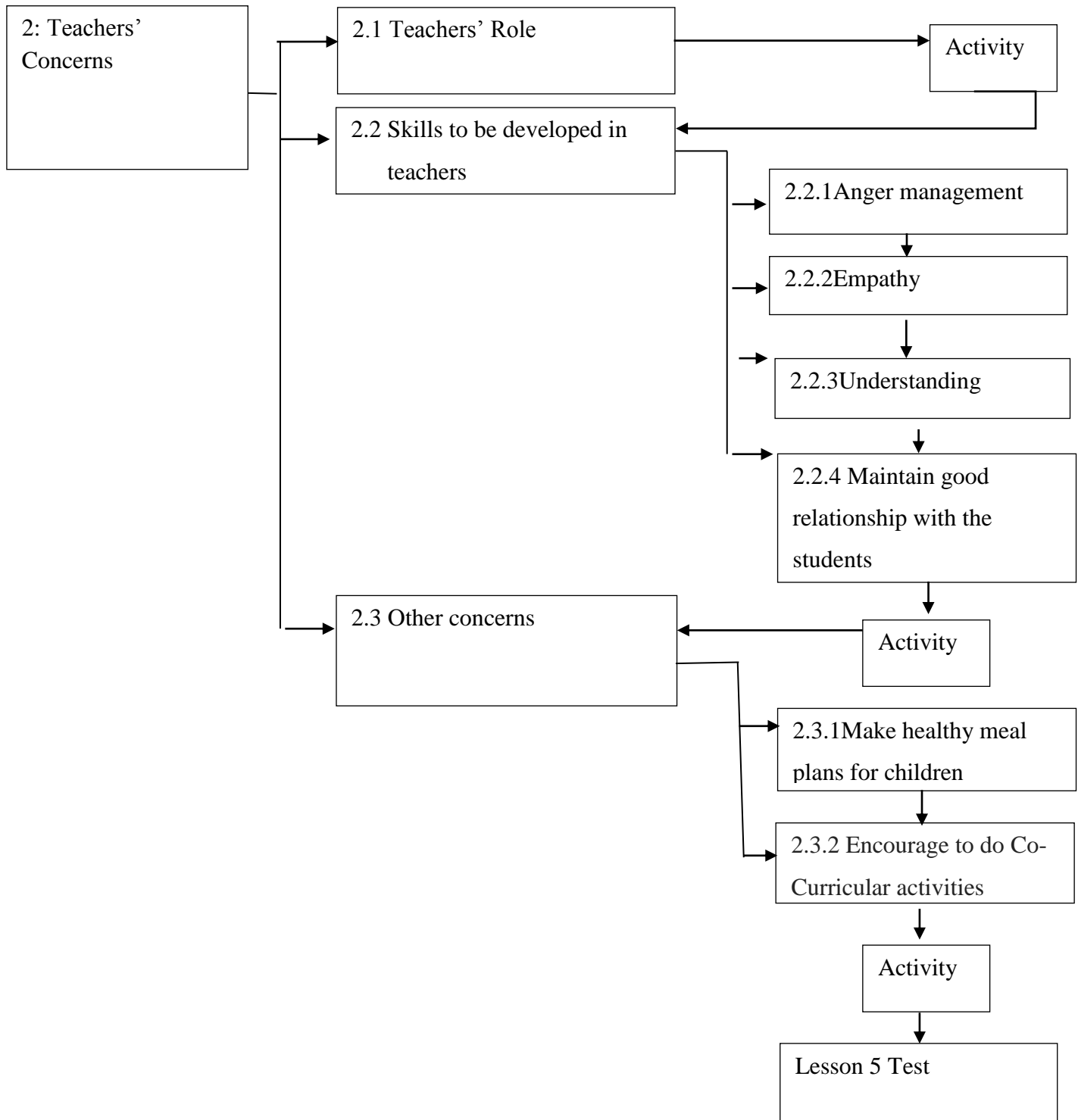


Figure 4.3: Level 2 Course Map for Lesson 2

4.3 Storyboards

4.3.1 Top Level Storyboards for Lesson 1 – Mental Disorders of Children

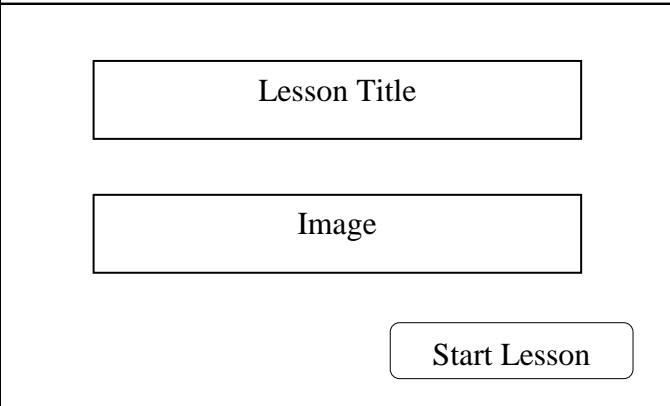
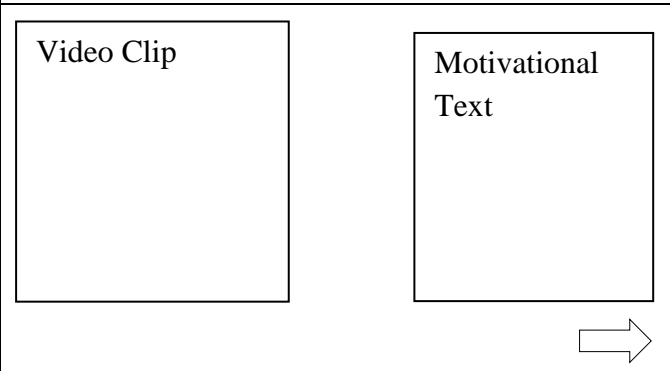
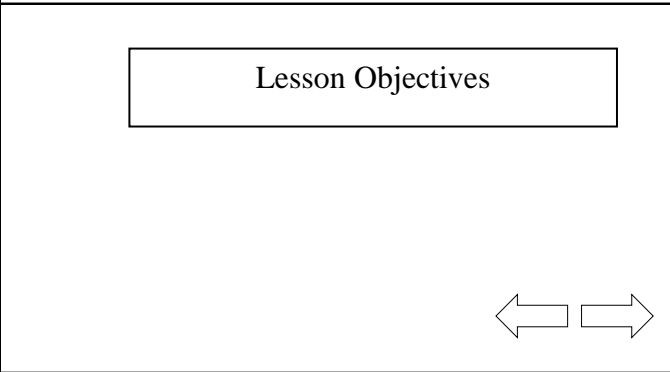
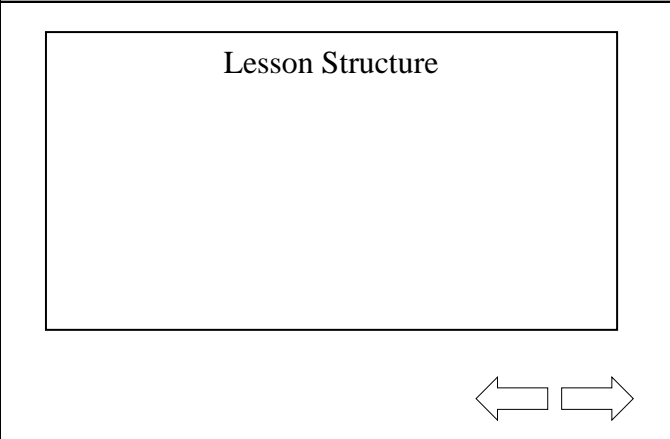
Visual	Explanation
 <p>The visual storyboard for the first page includes three main components: a rectangular box at the top labeled "Lesson Title", a larger rectangular box below it labeled "Image", and a rounded rectangular button at the bottom right labeled "Start Lesson".</p>	<p>This page contains the lesson topic and an image.</p> <p>At the bottom right corner Start Lesson button is placed.</p>
 <p>The visual storyboard for the second page features two side-by-side rectangular boxes. The left box is labeled "Video Clip" and the right box is labeled "Motivational Text". A right-pointing arrow is positioned below the "Motivational Text" box, indicating a transition to the next page.</p>	<p>This page contains motivational video and text.</p>
 <p>The visual storyboard for the third page consists of a single rectangular box labeled "Lesson Objectives". Below the box, there are two horizontal arrows pointing in opposite directions, indicating a transition to the next page.</p>	<p>This page contains the lesson objectives as a bulleted list.</p>
 <p>The visual storyboard for the fourth page features a large rectangular box labeled "Lesson Structure". Below the box, there are two horizontal arrows pointing in opposite directions, indicating a transition to the next page.</p>	<p>This page contains the structure of the lesson as course flow chart.</p>

Figure 4.4: Top Level Storyboard for Lesson 1(Introduction)



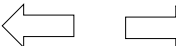
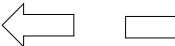
Visual	Explanation
<p>What is Mental Health? by Dr. Mike Condra</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; width: 150px; height: 80px; text-align: center;">Explanation of the video</div> <div style="border: 1px solid black; padding: 5px; width: 150px; height: 80px; text-align: center;">Video Clip</div> </div> <div style="text-align: center; margin-top: 10px;">  </div>	<p>This page contains a video clip on the right, Dr. Mike Condra explains about mental health.</p> <p>On the left, text is displayed describing the video clip.</p>
<p>What is a mental disorder?</p> <div style="border: 1px solid black; padding: 5px; width: 300px; height: 80px; text-align: center; margin: 10px auto;">Text Description</div> <div style="text-align: center; margin-top: 10px;">  </div>	<p>This page describes about mental disorders.</p>
<p>Following are not mental disorders.</p> <div style="border: 1px solid black; padding: 5px; width: 300px; height: 80px; text-align: center; margin: 10px auto;">Text</div> <div style="text-align: center; margin-top: 10px;">  </div>	<p>There are some situations where we misunderstand normal behavior of people as mental disorders, This page describes about them.</p>
<p>Causes for mental disorders</p> <div style="border: 1px solid black; padding: 5px; width: 300px; height: 80px; text-align: center; margin: 10px auto;">Diagram</div> <div style="text-align: center; margin-top: 10px;">  </div>	<p>This page shows the causes for mental disorders as a diagram.</p>

Figure 4.5: Top Level Storyboard for Lesson 1(What is mental health)








Visual	Explanation
<p>Quiz on mental disorders and the general causes.</p> <p>5 MCQs are given, one question can have one or more answers.</p> 	<p>Tests whether the learners have gained the expected knowledge.</p>
<p>Types of mental disorders</p> <div data-bbox="229 743 699 958" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Diagram: Shows the names of types of mental disorders with a picture.</p> </div>  	<p>This page shows the types of mental disorders using a diagram.</p>
<p>Neuro Developmental Disorders</p> <div data-bbox="212 1115 344 1182" style="border: 1px solid black; padding: 2px; margin: 5px 0;"> <p>Image</p> </div> <div data-bbox="212 1189 507 1346" style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>Description</p> </div>  	<p>This page describes the features of Neuro developmental disorders with a picture.</p>
<p>Externalizing Disorders</p> <div data-bbox="212 1482 344 1550" style="border: 1px solid black; padding: 2px; margin: 5px 0;"> <p>Image</p> </div> <div data-bbox="212 1556 507 1713" style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>Description</p> </div>  	<p>This page describes the features of externalizing disorders with a picture.</p>

Figure 4.6: Top Level Storyboard for Lesson 1(Types of Disorders)

4.3.2 Detailed storyboards

Detail storyboard for Lesson4 Start Page




Course Name: Child Psychology for Teachers		Storyboard File no. 02.00
Course section: Lesson 1- Title Page		
Lesson Name: Mental Disorders of Children		ID's name: Chandi
Objective(s): <ul style="list-style-type: none"> • Display Lesson Title 		SME's name: Dr. Sudarshi
Page Title: Let us Start Lesson 1 Mental Disorders of Children	Page no. 00.01.01.00	CD's name:
Date Designed: 10-06-2016	Date SME contributed:	Date verified:
Design		
<p>Let Us Start Lesson 1 – Mental Disorders of Children</p> 		
<p>Special comments:</p> <p><u>Lesson title:</u> Font: Colour: Blue, Type: Calibri, Size: 28</p> <p>Image file name: L4_main_title.jpg</p> <p>Image will be replaced as follows. Cartoon lady will be replaced by an actual lady. Background will be replaced by an entrance to a class room.</p> <p>Lesson Start button: Width 1” and height 0.75 “ Colour: Dark blue, Text2, Lighter20%</p>		

Figure 4.7: Detailed Storyboard for Lesson 1, Start Page

Detailed storyboard for video clip and audio clip

Course Name: Child Psychology for Teachers		Storyboard File no. 04.00
Course section: Lesson 1-Ice Breaker		
Lesson Name: Mental Disorders of Children		ID's name: Chandi
Objective(s): <ul style="list-style-type: none"> • Watch how ateacher controls a child with mental disorder by punishing. • Interpret the personal views about punishing a child. 		SME's name: Dr. Sudarshi
Page Title: Let us Start Lesson 1 Mental Disorders of Children	Page no. 00.04.02.00	CD's name:
Date Designed: 16-06-2016	Date SME contributed:	Date verified:
Design		
See whether you have the same experience.		
		
<p>As teachers you may have met children like this in your classrooms. How you control such children? As the teacher in the video? or you try to tell your sectional head, principal, call parents or try other methods such as being tactful to engage them in lessons?</p> <p>It is a difficult task to handle a class with more than twenty kids. You have difficulties in covering syllabus, maintain the discipline, avoid getting complaints from the parents, without letting parents to take you to child protection authority.</p> <p>We'll try to improve ourselves, let's learn the causes for such misbehaviors.</p>		
		

Text Formatting

Title

Font colour: Black, Type: Calibri, size: 28

Body Text

Font colour: Black, Type: Calibri, size: 14

Text Box size:

Width: 14" and Height: 4"

Black border around the textbox

Video player

Size:

Width: Width 8" and Height 5"

Controls:

Play, Pause, Stop at the bottom left of the player

Timer, HD, Maximize and Sound control should be displayed at the bottom right side of the player

Scenes of the video clip:



Explanations of the Scenes

Through out scenes 1 to 6, same figures should be used for the teacher and children.

Up to scene 4, teacher should wear light blue long sleeve shirt and dark blue tie, and black trouser. Children should wear white shirts and blue shorts.

In Scenes 5 and 6 teacher should wear purple shirt, black tie and a black trouser.

In scene 5 mother of the child should wear blue colour blouse and blue colour long skirt. She should wear a hand bag of black colour. Child should wear white shirt and blue shorts.

Setting: Primary school class room with a whiteboard, seven desks and chairs. On the whiteboard, map of the world is displayed.

Sound: Smooth background music should be played, no dialogs, use gestures to convey messages.

Scene1

Teacher is teaching Geography lesson, a child plays with a rocket made with paper and walking around the class disturbing other children. Teacher asks him to sit, but he does not listen.

Scene 2

Teacher is angry and sends the child out.

Scene3

Teacher continues the lesson and give an activity to the class, go out and see the punished child, he is still playing with the rocket.

Scene4

Angry teacher take the child back to the class and hits.

Scene 5

Next day mother of the child comes and tell the teacher that the child is suffering from a mental disorder called “ADHD”, who cannot control himself.

Scene 6

Teacher is really worried about his action, sitting on a chair next to a table.

Scene 7

Display text.

“Children love and want to be loved and they very much prefer the joy of accomplishment to the triumph of hateful failure. Do not mistake a child for his symptom.”

Font type og display text in scene 7: Calibri, colour: Blue, Size: 16

Audio script

No, background music. Read the following text, words which should be emphasized are in bold letters. Pause between two paragraphs. Stop at full-stops, pause at commas.

Audio file Saving instructions:

Save the audio files as : L4_Motivation.wav

Audio Script

As teachers you may have met children like this in your classrooms. **How you control such children?**


As the teacher in the video? or you try to tell your sectional head, principal, call parents or try other methods such as being tactful to engage them in lessons?

It is a difficult task to handle a class with more than twenty kids. You have difficulties in **covering syllabus, maintain the discipline, avoid getting complaints from the parents, without letting parents to take you to child protection authority.**

We'll try to improve ourselves, let's learn the causes for such misbehaviors.

Figure 4.8: Detailed storyboard for video clip and audio clip

Detailed story board for MCQ

Course Name: Child Psychology for Teachers		Storyboard File no. 04.00
Course section: Lesson 1-Ice Breaker		
Lesson Name: Mental Disorders of Children		ID's name: Chandi
Objective(s): <ul style="list-style-type: none"> • Check whether the learner gained the knowledge on mental disorders 		SME's name: Dr. Sudarshi
Page Title: Let us do a quiz on mental disorders	Page no. 00.04.10.00	CD's name:
Date Designed: 26-07-2016	Date SME contributed:	Date verified:
Design		
<div style="border: 1px solid black; padding: 10px;"> <p>Lets do a quiz on Mental disorders.  Child Psychology for Teachers</p> <hr/> <p>Select the correct answer for each question.</p> <p>Q1. A mental disorder is characterized by clinically significant disturbance in an individual's</p> <ul style="list-style-type: none"> <input type="radio"/> Emotion <input type="radio"/> Happiness <input type="radio"/> Mood <input type="radio"/> Sadness <p>Q2. Select the mental disorder from the following.</p> <ul style="list-style-type: none"> <input type="radio"/> Crying of a child because of mother's death. <input type="radio"/> Fight between two people having different political views. <input type="radio"/> Committing suicide because of GCE OL examination failure. <input type="radio"/> Headache. <p>Q3. Mental disorders affect on</p> <ul style="list-style-type: none"> <input type="radio"/> psychological and social aspects of a person's life. <input type="radio"/> Employee's job performance. <input type="radio"/> Family life. <input type="radio"/> All of the above. </div>		

Q4. Mental disorders differ from other body system disorders because,

- They do not have an affect on the psychological and social aspects of a person's life.
- They have an affect on the psychological and social aspects of a person's life.
- They can be explained as a change in person's body organ.
- they cannot easily be explained in terms of changes in the structure or functioning of an organ or body tissue.

Q5. Mental disorders are usually associated with significant distress or disability in

- Social skills
- Leg
- Hand
- Eyes

Check Answers

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Comments

Text Formatting

Title

Font colour: Black, Type: Calibri, size: 28

Body Text

Font colour: Black, Type: Calibri, size: 14

Text Box size:

Width: 12" and Height: 2"

Black border around the textbox

- 05 questions will be presented to the learner. They have three attempts. After 03 attempts, learners can see and print the answers.
- Each question contains question number, question and 4 answers,
- A question can have only one correct answers.
- After selecting the answers for the five questions learner has to click **Check Answers** button to see whether it is correct or wrong.

Giving feedback

After the learner clicks the **Check Answers** button, following feedback will be displayed next to the question.

- For the questions answered correctly , feedback will be given as
✓ **Correct**
- For the questions answered incorrectly, feedback will be given as
✗ **Try again**

Figure 4.9: Detailed storyboard for MCQ

Detail storyboard for a lesson

Course Name: Child Psychology for Teachers		Storyboard File no. 05.00
Course section: Lesson 1-1.2 Causes for Mental Disorders		
Lesson Name: Mental Disorders of Children		ID's name: Chandi
Objective(s): <ul style="list-style-type: none"> Describe the causes for mental disorders 		SME's name: Dr. Sudarshi
Page Title: Do you know the causes for mental disorders	Page no. 00.05.02.00	CD's name:
Date Designed: 26-07-2016	Date SME contributed:	Date verified:

Design

1.2 Causes for Mental Disorders

Do you know the causes for mental disorders? There are four. Click on each cause to see the details.

The slide displays four buttons representing causes of mental disorders: Heredity (dark red), Biology (blue), Psychological Trauma (green), and Environment (orange). The Heredity button is highlighted, and a corresponding text box is shown. The text box contains the following text: "Many mental disorders run in families, suggesting that the disorders, or more accurately, a vulnerability to the disorders, might be passed on from parents to children through genes." Below the text is a placeholder labeled "Picture".

Text FormattingTitle

Font colour: Black (#000000), Type: Calibri, size: 28

Body Text, Diagram

Font colour: White (#ffffff), Type: Calibri, size: 14

Diagram

Height and width of each circle: 1" by 1", radius: 0.5"

Colours and display text of each circle as follows:

Text	Boxr	Text Colour
Heredity (Genetics) -	Maroon (#800000)	White (#ffffff)
Biology	Green(#00ff00)	White (#ffffff)
Environmental stress	Purple(#bf00ff)	White (#ffffff)
Psychological trauma	Dark orange(#ff4000)	White (#ffffff)
Causes for mental disorders	Blue (#0000ff)	White (#ffffff)

When the learner clicks on a particular cause, description will be displayed and read as follows.

Details display, when each cause is clicked.

Text inside the circle	Description	Description Text Box colour	Text Colour
Heredity (Genetics)	Many mental disorders run in families, suggesting that the disorders, or more accurately, a vulnerability to the disorders, might be passed on from parents to children through genes.	#ffcccc	White (#ffffff)
Biology	As in adults, many mental disorders in children have been linked to abnormal functioning of particular brain regions that control emotion, thinking, perception, and behavior. Head traumas also can sometimes lead to changes in mood and personality.	#80ff00	White (#ffffff)
Environmental stress	Stressful or traumatic events can trigger a disorder in a person with a vulnerability to a mental disorder.	#f0b3ff	White (#ffffff)
Psycholog	Some mental disorders might be	#ffd1b3	White (#ffffff)

Audio script

No, background music. Read the following text, words which should be emphasized are in bold letters. Pause between two paragraphs. Stop at full-stops, pause at commas.

Audio file Saving instructions:

Save the audio files as : L4_Causes.wav

Audio Script

Text inside the circle	Description
Heredity (Genetics)	Many mental disorders run in families, suggesting that the disorders, or more accurately, a vulnerability to the disorders, might be passed on from parents to children through genes.
Biology	As in adults, many mental disorders in children have been linked to abnormal functioning of particular brain regions that control emotion, thinking, perception, and behavior. Head traumas also can sometimes lead to changes in mood and personality.
Environmental stress	Stressful or traumatic events can trigger a disorder in a person with a vulnerability to a mental disorder.
Psychological trauma	Some mental disorders might be triggered by psychological trauma, such as severe emotional, physical, or sexual abuse; an important early loss, such as the loss of a parent; and neglect.

Figure 4.10: Detailed storyboard for Lesson 1.2

4.4 Design Considerations

When designing the course following were considered.

Time

The course should be developed within six months. All the phases: analysis, design, development, implementation and evaluation should be done within this time period.

Authoring software

Selection of the software to develop the course is an important task. Since there are several authoring tools to develop an eLearning course, alternatives should be tried and the best tools should be selected.

Required resources

Since the developer is new to the subject child psychology, thorough literature review was done. In addition views of subject matter experts and the college principal also considered.

Course Accessibility

Since the learners are having internet connections with different bandwidths, course will contain image, audio and video files with small file sizes. It will help learners with low bandwidth internet connection to access the course without difficulty.

Design of Course content

Organization

Content and activities were arranged sequentially. They are interactive and help to engage the learners in activities. Information were “chunked” and arranged sequentially from simple to complex.

Navigation

Appropriate navigation were designed, with Next and Previous buttons.

Assessment

Interactive assessments such as Drag and drop questions and MCQs with constructive feedback will be given to the learners.

Chapter 5 Development and Implementation

5.1 Introduction

This chapter describes the course development phase. Learning Management System development, Server installation, course content development is explained. Using the storyboards done in design phase, course content was developed.

5.2 Developing Strategies and Techniques

When developing the course content, characteristics of target audience and the requirements of the school principal, vice principal and the sectional head teachers were considered.

5.2.1 Considerations on developing the content

When authoring the content following were considered,

- Learning objectives
- Assessments and activities
- Adults learning methods (andragogy) and constructivism as learning theory.

5.2.2 Overall Considerations

General

Student help facility is provided.

Appropriate navigation (linear) is provided for easy access

Text

Usage of suitable font type, size and colors.

Appropriate line spacing is used to improve the readability.

Media

Since the course is based on mental disorders of children, to show the symptoms, video clips are used. Charts, diagrams and the pictures are used appropriately with the text.

Animations

Animations are used to entice the learners.

Audio

Narrations are used, for the learners who do not like to read.

5.3 Developing Course Content

When developing the course content following skills are required:

- Graphic designing
- Audio editing
- Video editing
- User Interface Design

When developing the course content several tools were tried. Therefore the capabilities and the weaknesses of each tool could be identified.

5.4 Tools used

5.4.1 Factors considered when selecting tools

Easy to make and edit the content

Tools which helps to make the course content easily and edited easily was used, since it helps to develop course content rapidly.

Ease of learning

Since the course is to be developed within short time period, easy to learn tools were selected.

Make interactive content

Tools which can be used to develop course content interactively was selected.

Cost

Since the course is developed as final year eLearning project, tried to use free tools and trial versions.

Availability of sample courses

When there are sample courses developed, could go through them and get ideas to develop my content.

Templates

Templates enhances rapid development.

Integrate with LMS

Developed content should be compatible with Moodle LMS.

5.4.2 Authoring Tools

- Articulate Storyline2

Articulate Storyline 2 is a stand-alone eLearning authoring software developed by Articulate.

- Articulate 360

Articulate 360 is an online eLearning authoring tool developed by Articulate. Built in course templates are there which we can modify according to our requirements.

- ARTICULATE ENGAGE '13

This is also a standalone tool, there are built-in interactive templates and we can quickly add powerful interactivity to eLearning courses.

- iSpringSuit8

iSpringSuit 8 is an adding to Microsoft PowerPoint. Narrations, quizzes, interactions, dialog simulations can be done using iSpringSuit8.

5.4.3 Video Editing Tools

- Adobe Premiere Pro CC 2014
- Adobe After Effects CC

To edit the video I recorded, these two software were used.

5.4.4 Audio Editing Tools

- Audacity

5.4.5 Graphic Designing Tools

- Adobe Photoshop CS6

5.4.5 Narration

For narration free online Text to Speech tool was used.

<http://www.fromtexttospeech.com/>

5.4.6 Learning Management System

Moodle is used as the learning management system. It is free and open source eLearning platform as it has the features:

General Features

- Easy to use interface.
- Personalized dashboard.
- Direct learning paths, different classes are available such as instructor-led, self-paced, blended or entirely online.
- Embed external resources.
Teach materials and include assignments from other sites and connect to the grade book in Moodle.
- Collaborative tools and activities
Students can Work and learn together in forums, wikis, glossaries and etc.
- Integrated badges
To motivate the learners and reward participation which encourages the learners.
- Calendar
Can keep track of academic calendar, assignment deadlines and etc.
- Notifications
When enabled, users can receive automatic alerts on new assignments and deadlines, forum posts and also send private messages to one another.
Track progress

- Educators and learners can track progress and completion with an array of options for tracking individual activities or resources and at course level.
- Documentation, software can be learnt easily using the Moodle documentation.

Administrative Features

- Customizable site design and layout
Easily customise a Moodle theme with your logo, colour schemes and much more - or simply design your own theme.
- Secure authentication and mass enrolment
Over 50 authentication and enrolment options to add and enroll users to your Moodle site and courses.
- Bulk course creation and easy backup
Add courses in bulk, backup and restore large courses with ease.
Bulk course upload
- Manage user roles and permissions
Address security concerns by defining roles to specify and manage user access.
Roles and permissions
- Supports open standards
Readily import and export IMS-LTI, SCORM courses and more into Moodle.
SCORM / External tool
- Detailed reporting and logs
View and generate reports on activity and participation at course and site level.
Site-wide reports.
- Simple plugin management
Install and disable plugins within a single admin interface.

Course Development and Management Features

- Direct learning paths
Design and manage courses to meet various requirements. Classes can be instructor-led, self-paced, blended or entirely online.
- Encourage collaboration
Built-in collaborative publishing features foster engagement and encourage content-driven collaboration.
Activities

- Embed external resources

Teach materials and include assignments from other sites and connect to the gradebook in Moodle.

Multimedia Integration

Moodle's built-in media support enables you to easily search for and insert video and audio files in your courses.

Working with media

- Group management

Group learners to share courses, differentiate activities and facilitate team work.

Outcomes and rubrics

- Grading

Select from advanced grading methods to tailor the gradebook to your course and examination criteria.

- Security and privacy

Teach and share in a private space only you and your class can access courses.

To use Moodle following software requirements should be fulfilled.

- PHP
- Web server which supports PHP.
- Database

Therefore free and open source cross-platform web server XAMPP developed by Apache Friends, which consists Apache HTTP Server, MySQL database, and interpreters for scripts written in the PHP programming language is used.

5.5 Course Implementation Screens

5.5.1 Implementation of Moodle LMS

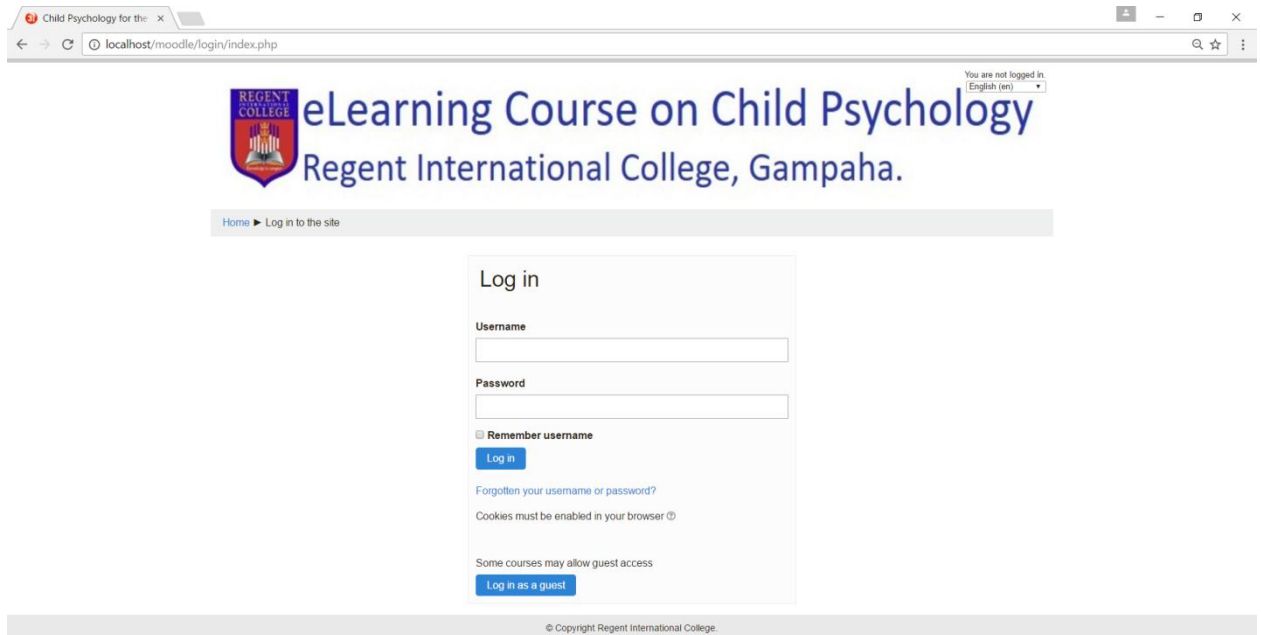


Figure 5.1: Course Login Page

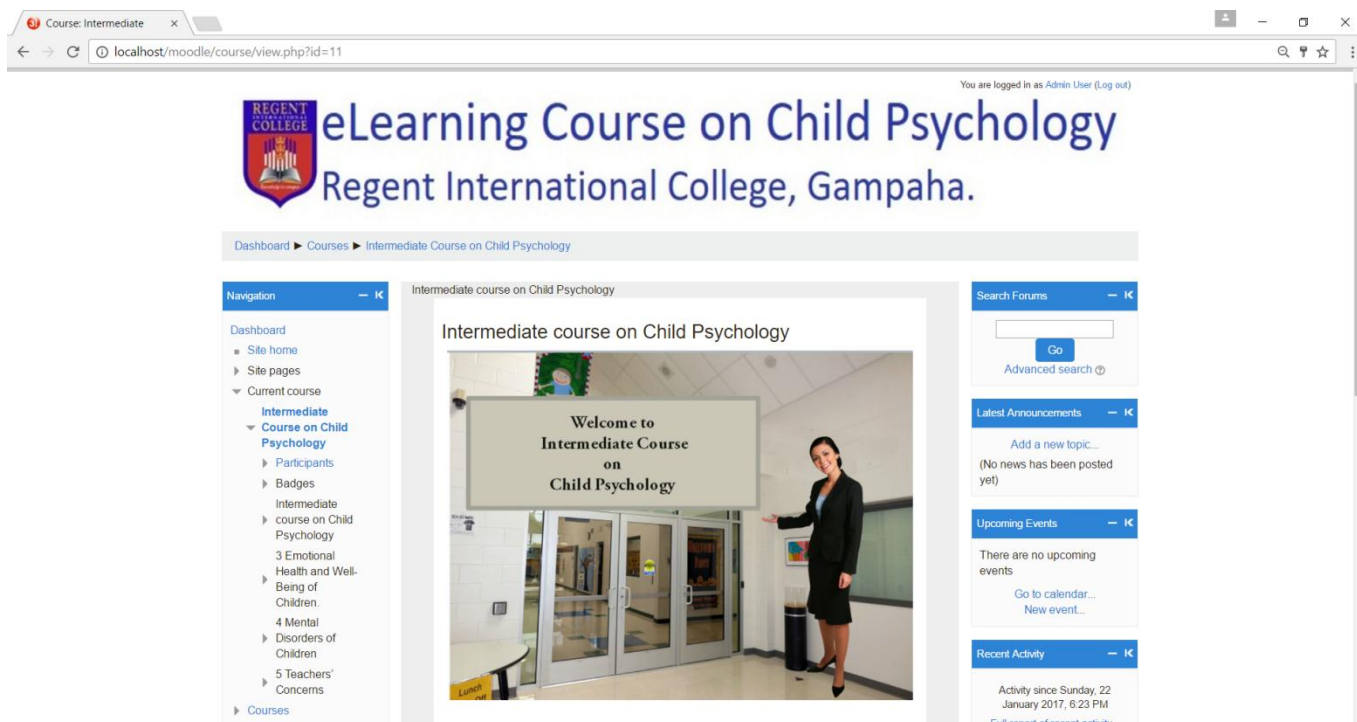


Figure 5.2: Welcome Message

1.1.1 What is mental illness?



- Mental illnesses are health conditions.
- They involve changes in person's behaviour, emotion, thinking or a combination of these.
- Keep mouse pointer on buttons to see an image.

Change in Behaviour

Change in Thinking

Change in Emotion



Reprinted with permission from "What is Mental Illness?", (copyright @ 2015), American Psychiatric Association, All Rights Reserved.



< PREV

NEXT >


Figure 5.3: What is mental illness?







Figure 5.4: Drag and Drop Quiz (Mental health)



Figure 5.5: Autism Spectrum Disorder, Welcome page

Click on  buttons to learn about Autism Spectrum Disorder.

Autism Spectrum Disorder

- What is it? 
- Symptoms 
- Causes 
- Help 

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OUTLINE NOTES

Search...

- Welcome
- Introduction
- Video on autism
- Symptoms
- Communication Difficulties
- Communication Difficulties

2 / 41 00:05 / 00:05

PREV NEXT

Figure 5.6: Autism Spectrum Disorder, Introduction

They cannot understand verbal and non verbal communication, click on each difficulty to see them in detail.

Communication Difficulties

Verbal Communication

Non Verbal Communication

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OUTLINE NOTES

Search...

- Welcome
- Introduction
- Video on autism
- Symptoms
- Communication Difficulties
- Communication Difficulties

5 / 41 00:05 / 00:05

PREV NEXT

Figure 5.7: Autism Spectrum Disorder, Communication Difficulties

Chapter 6 Evaluation

6.1 Introduction

This chapter, describes how the course evaluation was done. By performing evaluation we can understand whether the course achieved its goals and met objectives and it helps to improve the course by overcoming the drawbacks.

eLearning course on child psychology was designed and developed for the primary school teachers of Regent International College Gampaha to increase their knowledge on mental health, types of mental disorders and common mental disorders among children in the age range from 2 to 12.

Evaluation can be done in two ways:

1. Formative Evaluation

Formative evaluation is done throughout the course by giving quizzes and assignments.

2. Summative Evaluation

Summative evaluation was done at the end of the course, when the learners finish the course. This helps to evaluate whether the learners have met the course objectives.

6.2 Evaluation Process

Before evaluating the course an introductory session was conducted for the learners to introduce the course and how to follow it in online environment. From thirty two teachers in the pre-primary school and the primary school, ten teachers were participated in the evaluation process.

Course evaluation was done in following ways:

1. By checking post-test marks.
2. By providing an evaluation questionnaire [**Appendix 06**]for the learners and getting their feedback.

Evaluation questionnaire was made using google forms and the link was provided in LMS for the learners to fill. Results were saved as MS Excel file and it was analyzed.

Evaluation results analysis are in [Appendix07]

6.3 Achievement of course objectives

Objective 1: Making comprehensive curriculum with the content including most suitable topics for the teachers of the pre-primary and the primary school.

This objective could be achieved, the syllabus was approved and accepted by the principal, vice principal and the sectional head teachers of the pre-primary school and the primary school. **Syllabus Approval letter is in[Appendix 04]**

Objective 2: Making eLearning course on child psychology to be followed by the pre-primary school and the primary school teachers including mental disorders of children (description, symptoms, causes and how to help such children). To develop the course valid source DSM 5 was used by obtaining permission. **(Permission granted emailis in Appendix 05)**

Most important lessons in the syllabus (Lesson 4, Mental disorders of children and Lesson 5, Teachers' Concerns) were developed including images, audio, video and with interactivity.

Objective 3: Develop interactive learning environment which enables them to discuss the problems related to the topic.

Could develop interactive learning environment by using eLearning authoring tools and multimedia.

Objective 4: Measuring teachers' progress by doing pre-test, assessments and post test..

Could measure the knowledge of the teachers by giving pre-test, assessments and post-test.

By considering the evaluation results, achievements of course objectives and the pre-test and post-test marks of the learners it can be considered that the eLearning course on child psychology could be successfully implemented.

Chapter 7: Conclusion & Future Work

7.1 Conclusion

eLearning course on Child Psychology was developed based on the syllabus prepared by the author. To make the syllabus, support was taken by subject matter experts. Main objective was to enhance the knowledge on child psychology (specially the mental disorders of the children in the age group of 2 to 12) of the teachers in the pre-primary school and the primary school.

Before designing the course needs analysis was done in order to identify the requirements of the course. Blooms taxonomy and constructive alignment were used to write course objectives. ADDIE model was used as the instructional system design model and Gagne's nine steps of instruction was used as instructional design model.

Content of each mental disorder was designed with different themes to attract the learners.

According to the syllabus there are five modules, but the author could complete only units 4 and 5 due to time limitation. Since the author is novice to eLearning, it took a considerable amount of time to learn the features of each eLearning tool and video editing software to develop the content.

Course evaluation was done by giving evaluation questionnaires and considering the post-test marks obtained by the learners.

7.2 Future Work

- Developing the mobile version of the course.

If the course can be developed as mobile app most of the learners would follow it.

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Appendix 01

Free Online Courses

Course 1:

Introduction to Child Psychology by The Open University UK[24]

(Duration - 08 hours)

Learning outcomes

After studying this course, you should be able to:

- Understand the discipline of child psychology as an area of study
- Understand how theories try to explain children's development
- Discuss important questions that are central to child psychology
- Understand how child psychologists work in different applied settings.

Lesson Structure

1. What is child psychology?
2. Using Theories to understand development.
3. Asking questions about children's development.
4. Child Psychologists in applied settings.

Course 2:

Introduction to Autism: Free Online Series by Geneva Centre for autism [25]

Lesson Structure

- Characteristics of Autism
- What is Applied Behaviour Analysis
- Using Reinforcement
- Functions of Behaviour
- Communication Strengths and Challenges
- Understanding Sensory Needs
- Understanding Social Challenges in Children and Adolescents
- Learning Styles

Paid Online Courses

Course 1: Developmental, Learning and Behavioural Disorders in Children and Adolescents [21]

Lesson Structure

Lesson 1: Nature and Scope of Developmental Disorders - Mental Retardation/learning disability

Lesson 2: Autism - Autistic Disorder signs, symptoms, treatment and support

Lesson 3: Asperger's Disorder - signs, symptoms, treatment and support

Lesson 4: Other Pervasive Developmental Disorders (Rett's Disorder, Childhood Disintegrative Disorder, Developmental Disorders NOS) signs, symptoms, treatment and support

Lesson 5: Attention-Deficit and Hyperactivity Disorders - ADHD & variants, signs, symptoms, treatment and support

Lesson 6: Conduct Disorders (Include oppositional defiant disorder) signs, symptoms, treatment and support

Lesson 7: Learning Disorders - focus on academia (Mathematics, Reading Disorder - Dyslexia, etc.) signs, symptoms, treatment and support

Lesson 8: Communications Disorders & Motor Skills Disorder - focus on speech and language signs, symptoms, treatment and support

Lesson 9: Special Project (choose something of interest to the student) signs, symptoms, treatment and support

Course 2: Child Psychology101 [22]

Lesson Structure

Lesson 1. The Concept of Childhood

Lesson 2. Early Biological Factors in Child Psychology

Lesson 3. Major Schools of Child Psychology

Lesson 4. Piaget's Theory of Cognitive Development

Lesson 5. Vygotsky's Theory of Social Cognitive Development

Lesson 6. Erikson's Eight Stages of Development

Lesson 7. Development of Language

- Lesson 8. Nature versus Nurture
- Lesson 9. Family Dynamics and Child Psychology
- Lesson 10. Applied Child Psychology
- Lesson 11. Psychological Testing and Children

Course 3: ADHD Awareness course [30]

Course fee: £127

Lesson Structure

- Module 1: What is ADHD?
- Module 2: Causes, Theories and Prevalence – What we know so far
- Module 3: The Law and ADHD

Face to Face conducted courses on Child Psychology in Sri Lanka

- **Gateway Graduate School, 27, Mcleod Road, Colombo 4**

Course 1: Pearson Edexcel Professional Diploma in Teaching

Course Fee: Rs. 160,000/=

Course Structure

- Unit 1 - Soft Skills for Teachers
- Unit 2 - Principles of Teaching and Learning Professional Certificate.
- Unit 3 - Delivering Practical Teaching and Learning
- Unit 4 - Developing Assessment Practice
- Unit 5 - Developing Creative Approaches to Teaching and Learning
- Unit 6 - Developing Resources to Support Teaching and Learning
- Unit 7 - Using ICT to Support Teaching and Learning
- Unit 8 - Promoting Independent Learning

- **American College of Higher Education, No: 23, Hospital Road, Dehiwala.**

Course 2: Diploma in Child Psychology

Course Fee: Rs. 180,000

Course Structure

Module I – Introduction to Psychology

Module II – Developmental Psychology

Module III – Educational Trends in Child Psychology

- **Course 3: Diploma in Special Needs Education**

Course Fee: Rs. 250,000

Lesson Structure

1. Outline of Learning Disabilities
2. Autism and Asperger's Syndrome
3. History and Theories in Autism
4. Causes , Diagnosis and Assessment of Autism
5. Explaining Autistic behavior
6. Communication and language
7. Approaches to Autism
8. Practical suggestions when working with Autism
9. Ethical, Legal and Organizational Issues

Appendix 02

Needs Assessment Questionnaire

Survey to identify the requirements for an eLearning Course on Child Psychology.

This survey includes two sections.

Section 1: To understand the teachers' knowledge on child psychology and to identify the requirements for a course on child psychology.

Section 2: To understand the Computer Literacy of the teachers.

- Please spend 30 minutes from your valuable time to fill this questionnaire.
 - Put ✓ mark for the questions with Yes/No or multiple answers.
-

Section 1: Survey on Child Psychology

1. What is your age?
 - Between 20 – 30
 - Between 30 – 40
 - Between 40 – 50
 - Between 50 – 60
2. You are a,
 - Male
 - Female
3. What is your religion?
 - Buddhism
 - Christianity
 - Hindu
4. Any disabilities you have?
 - Poor vision
 - Color blind
 - Hearing problems

Any other disability you have, mention below.

.....
.....

5. Do you know the following mental disorders and the symptoms of them?

		Disorder		Symptoms	
		Yes	No	Yes	No
1	Hyper-activity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	ADHD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Depression	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Eating disorders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Learning disorders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. If you know any other mental disorder/s mention below.

.....
.....
.....
.....

7. Have you followed any Child Psychology or Psychology course/s before?

Yes No

8. If Yes, what is the type of the course?

- Degree in Child Psychology
- Degree in Psychology, Child Psychology as a subject
- Diploma in Child Psychology
- Certificate in Child Psychology
- Child Psychology as a subject in Teaching Diploma

9. If a child psychology course is to be designed for you, what do you expect from it?

.....

.....

.....

.....

Section 2 –Survey on Computer Literacy

1. Do you have a Computer at home?
 Yes No

2. If you have a computer at home, does it have internet connection?
 Yes No

3. If you have internet connection at home, how you connect to the internet?
Using,
 Dongle
 Router
 Wi-Fi
 Do not know

4. Have you accessed internet before?
 Yes No

5. Can you access internet without the help of others?
 Yes No

6. If you have accessed internet before, what are the tasks you performed in internet?
 Search information from search engines.
 Get information by browsing a web site.
 Download a syllabus.
 Read newspapers.
 Send emails.
 Follow online courses.
 Facebook

7. How often you access internet?
 Daily

- Weekly
- Monthly
- When a need arises
- Never

8. Do you know web browsers and their usage?

Web browser		Usage	
Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>

9. Have you used the following browsers before?

- Google Chrome
- Mozilla Firefox
- Opera
- Internet Explorer
- Safari
- Have not used
- Do not know whether I have used it.

10. Do you know the difference between website and web page?

- Yes No

11. Do you know the hyperlinks and their usage?

Hyperlink		Usage	
Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>

12. Have you followed an online course/s before?

- Yes No

13. Do you like to follow an online course on child psychology?

- Yes No

14. Do you know the benefits of following an online course, rather than face to face teaching?

- Yes No

15. If Yes, write the benefits you know.

.....
.....
.....
.....

16. To follow an online course, do you need training for it?

Yes No

17. Can you spend one hour per day to follow an online course from home?

Yes No

18. Will you pay for internet, if an online course is to be followed at home?

Yes No

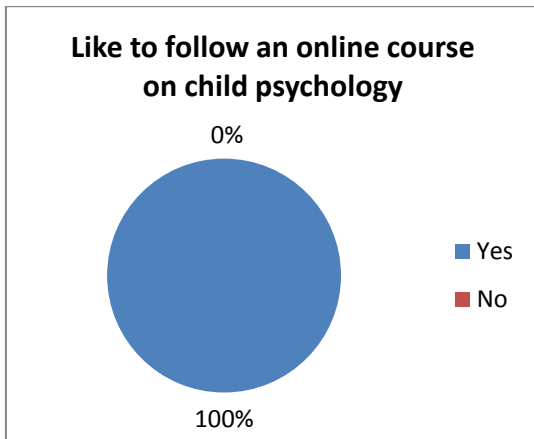
Thank you for spending your valuable time to fill this questionnaire.

Appendix 03

Results of Needs Analysis

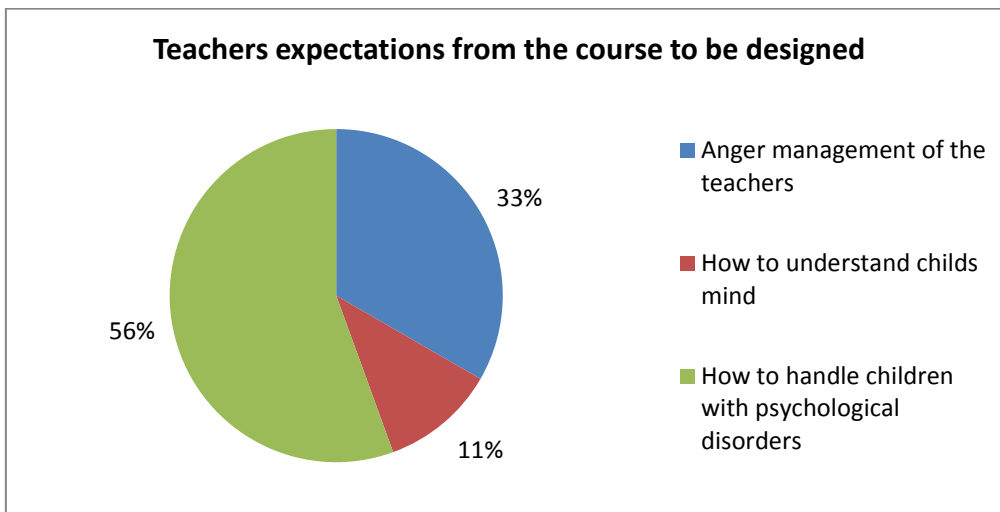
Prerequisite knowledge, skills and attitudes of the learners regarding the new course

Figure 1: Teachers who like to follow eLearning course on child psychology



All the teachers like to follow an eLearning course on child psychology.

Figure 2: Teachers' expectations from the new course



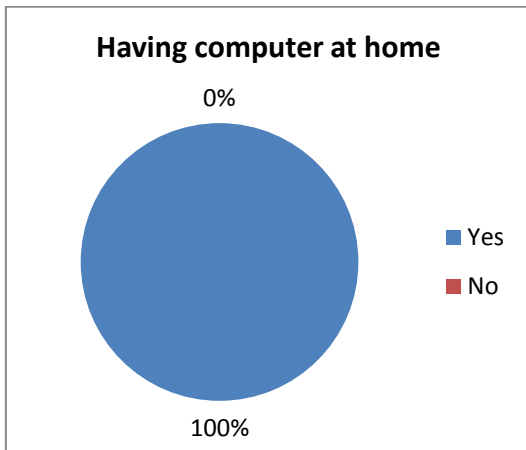
Teachers' expectations from the new course

33% - anger management

11% - how to understand child's mind

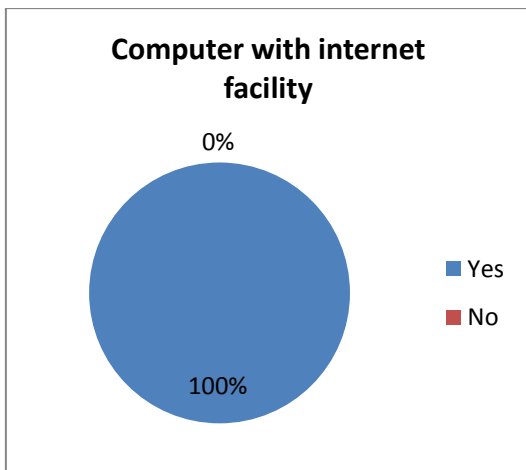
56% - how to handle children with mental disorders in the school.

Figure 3: Teachers having computers at home



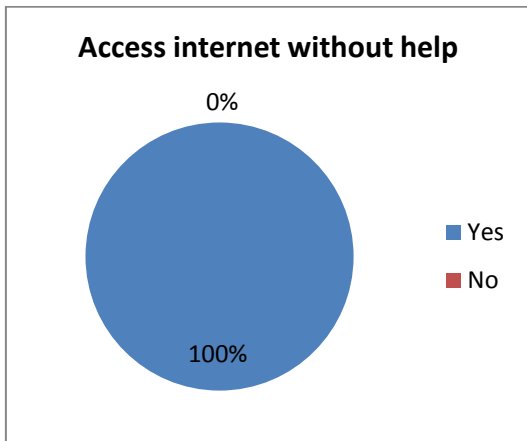
According to analysed data 100% of the teachers are having computers at home.

Figure 4: Computer with internet facility



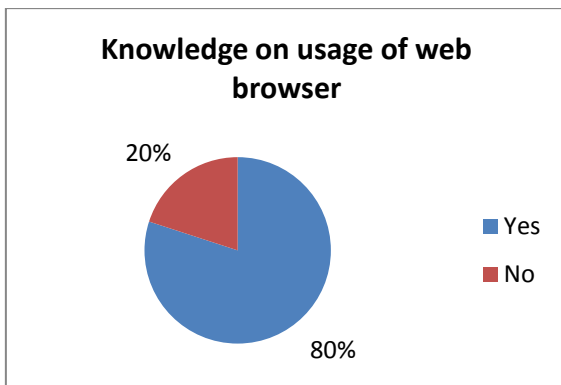
100% of the teachers are having internet facility at home.

Figure 5: Teachers can access internet without help of the others



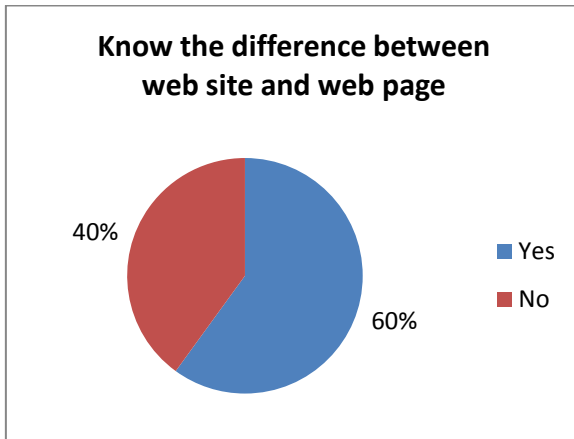
100% of the teachers can access internet without help of the others.

Figure 6: Knowledge on usage of web browser software.



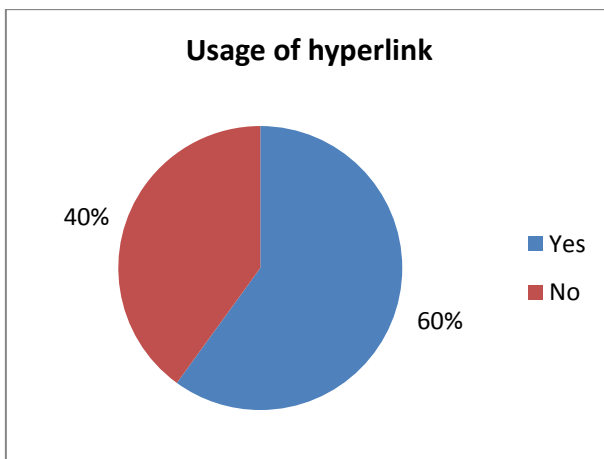
80% of the teachers know the usage of web browser, 20% of the teachers do not know the usage of the web browser.

Figure 7: Know the difference between web page and web site



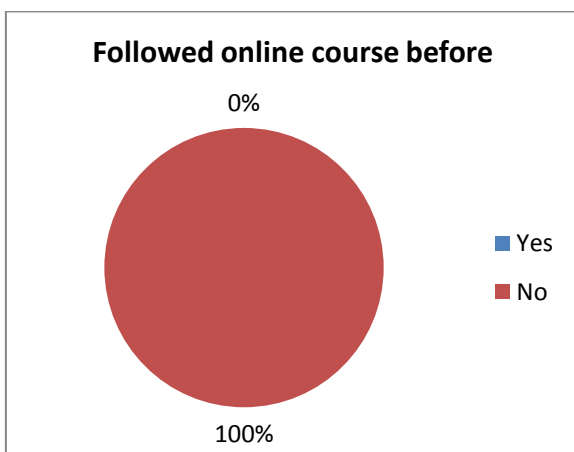
60% of the teachers know the difference between web site and web page. 40% do not know the difference between web site and web page.

Figure 8: Know the usage of hyperlinks



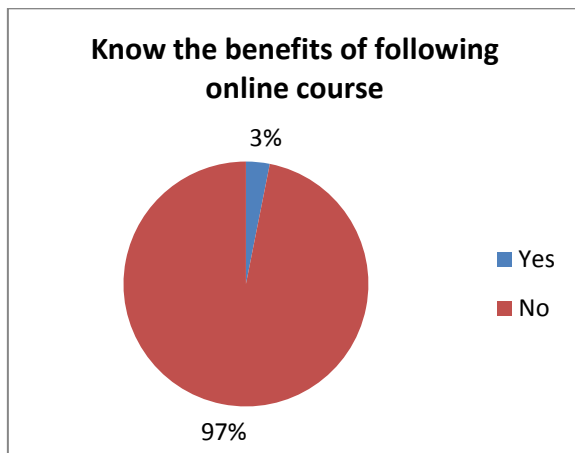
60% of the teachers know the usage of hyperlinks, 40% do not know the usage of hyperlinks.

Figure 9: Followed an online course before



100% of the teachers have not followed an online course before.

Figure 10: Know the benefits of following online course rather than face to face learning.

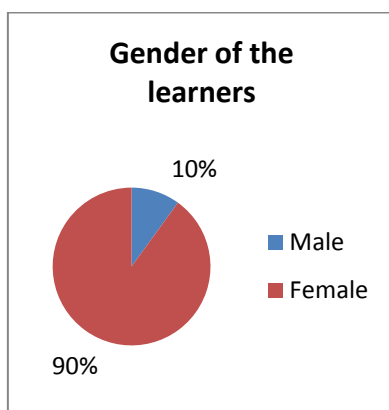


97% of the teachers do not know the benefits of following an online course, only 3% know the benefits of following an online course.

Other characteristics

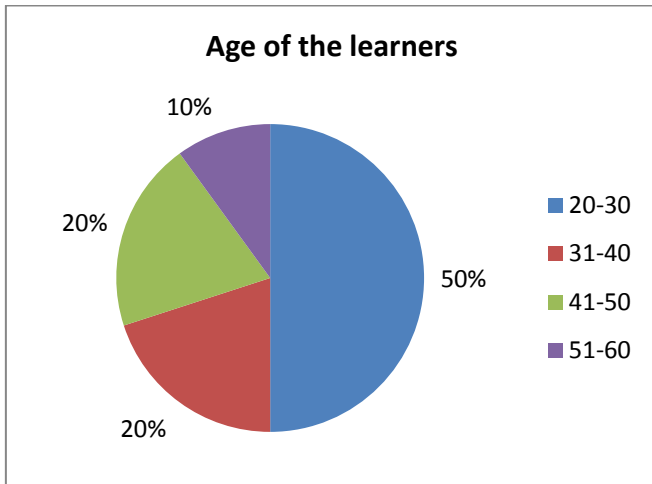
Demographic characteristics

Figure 11: Gender of the learners



According to the analyzed data 10% are males, 80% are females.

Figure 12: Age categories of the learners



According to the analysed data % of teachers are in the following age categories below.

20 – 30: 50%

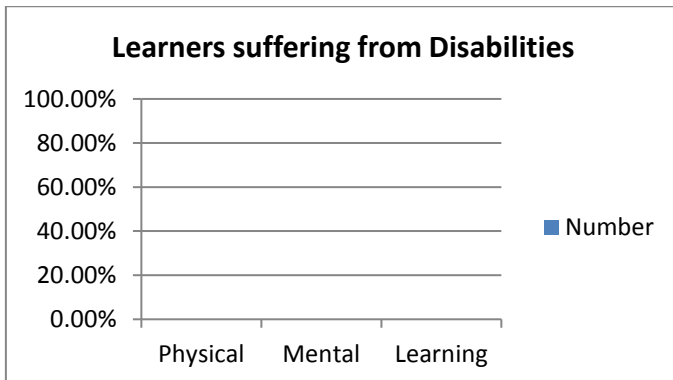
31 – 40: 20%

41- 50: 20%

51- 60: 10%

Physiological characteristics (physical disabilities)

Figure 13: Learners suffering from disabilities



According to the analysis no one is suffering from physical, mental or learning disorders.

Appendix 04

Approval letter of the syllabus

Celebrating 15 Years of Excellence

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+94 77 0 370 388

 +94 33 4 670 352

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 www.regentgampaha.com

08.03.2017

Course Coordinator,
University of Colombo School of Computing,
No.35,
Reid Avenue,
Colombo – 7.

Dear Sir/Madam,

Accepting the Syllabus of eLearning Course on Child Psychology

This is to inform you that the syllabus prepared by Ms. W.V.C.N. Jayasinghe, Index No. 14550273 (MIT eLearning 2014/2015 batch of University of Colombo School of Computing) for the project “eLearning course on Child Psychology for the teachers of the Primary School of Regent International College, Gampaha” is designed under my guidance and accepted by the school.

It covers the important topics for the teachers to perform their duties well in the school.

Outline of the Syllabus

Lesson 1: Child Development
Lesson 2: Major Theories on Child Psychology
Lesson 3: Emotional Health and Well Being of Children
Lesson 4: Mental Disorders of Children
Lesson 5: Teachers’ Concerns

Yours Faithfully,

Principal

Appendix 05

Request to Obtain Permission from APA/APP. Permission Request Reference ID: PL13639 Inbox x

 **Efrem Tuquabo** etuquabo@psych.org [via](mailto:etuquabo@psych.org) americanpsych.onmicrosoft.com Feb 3 (2 days ago) ☆

to me ▾

Dear Chandi Jayasinghe,


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AMERICAN PSYCHIATRIC ASSOCIATION PUBLISHING
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Appendix 06

Course Evaluation Questionnaire

Learner Evaluation Questionnaire for eLearning Course on Child Psychology

This is an effort to improve the quality of the course eLearning Course on Child Psychology, We kindly request you to fill in the questionnaire given below.

You may have to spend 15 – 20 minutes of your valuable time to make this effort a success.

All the feedback you provide will remain anonymous and confidential. After data analysis, your name will not be linked to any of the statements you have made.

* Required

Email address *

Your email

Section you are attached to:

- Pre-Primary School
- Primary School

What is your gender?

- Male
- Female

What is your age?

- Between 20 – 30 years
- Between 31 – 40 years
- Between 41 – 50 years
- Between 51 – 60 years

Please indicate your highest level of education:

- Diploma in Teaching
- Graduate

What is your qualification in psychology?

- Certificate Course in Psychology
- Diploma in Psychology
- Other: _____

Did you require help to follow the course?

- Yes
- No

If you got help, what type of help did you get?

Your answer _____

NEXT

Never submit passwords through Google Forms.

Section 2

Use following ratings to select an answer for the question given below.

1 – Not Satisfied

2 – Satisfied

3 - Good

4 – Very Good

5 – Excellent

Course Content

	Not satisfied	Satisfied	Good	Very Good	Excellent
Course objectives were clear.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning materials were clear and understandable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Could watch videos without disturbance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Audio was clear and understandable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Materials were sequenced appropriately.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Materials were well organized.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
PDF files were helpful for offline access.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reference materials were useful.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Moving from one page to another was easy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Course Assessments/ activities

	Not satisfied	Satisfied	Good	Very Good	Excellent
Course activities helped me to learn.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Activities were realistic and could be done with the resources I had.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Course activities helped me to apply the knowledge in the class room.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Course activities encouraged me to communicate and exchange ideas with colleagues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instructions were easy to follow.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assignments were challenging.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feedback provided was useful.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The turnaround time between submitting an assignment and receiving feedback was reasonable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Overall

	Not satisfied	Satisfied	Good	Very Good	Excellent
Course objectives, content, and assessments were consistent.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Course helped me to understand the children in my class room.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Course helped me to handle children with mental disorders better than earlier.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Course help was useful to follow the course.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I would recommend this course to a friend.

Yes

No

Any other comments/suggestions for improvements:

Your answer

Send me a copy of my responses.

BACK

SUBMIT

Appendix 07

Course Evaluation Results

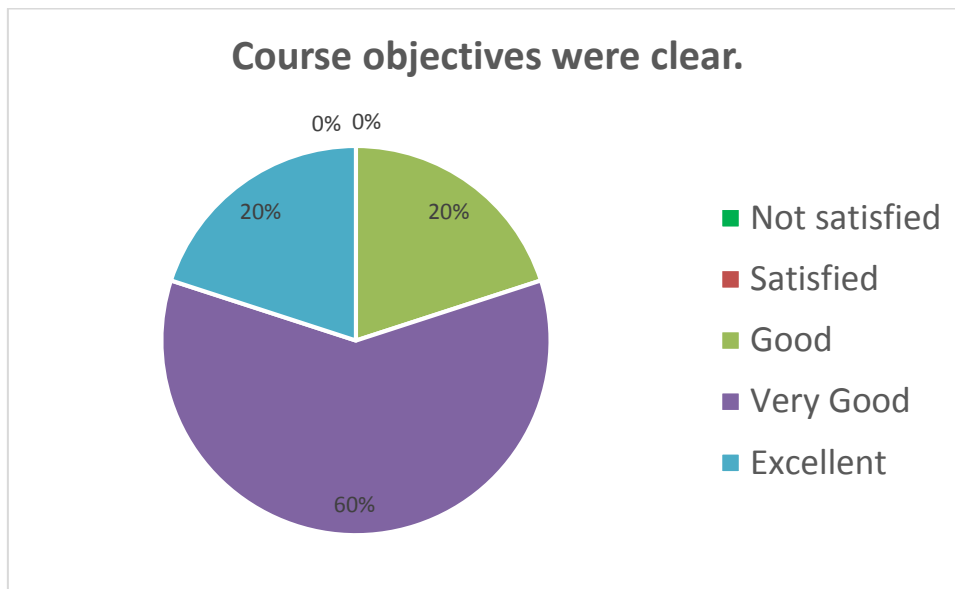


Figure 1: Clear course objectives

60% of the teachers say that that the course objectives were clear.

20% it is excellent.

20% say it is good.

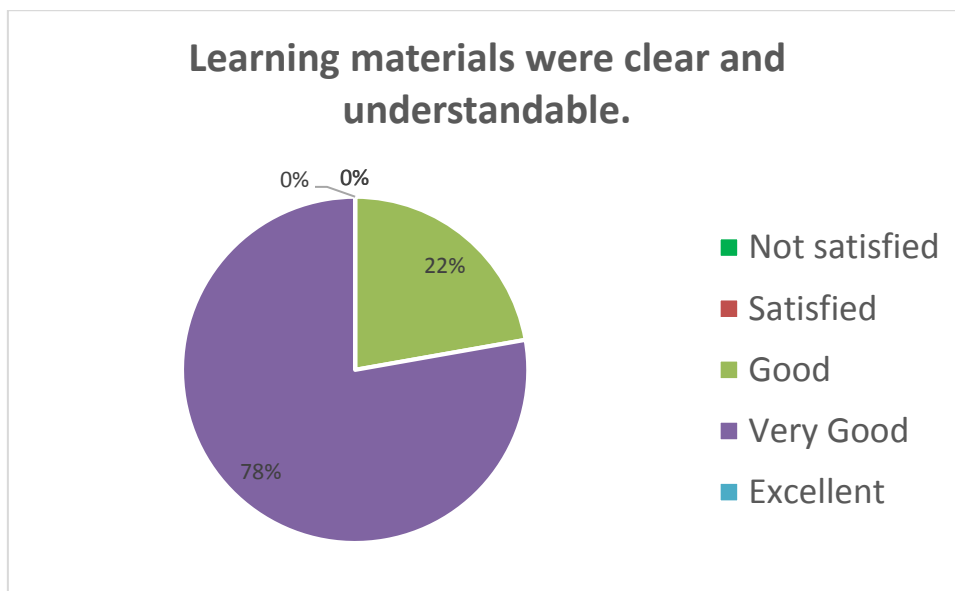


Figure 2: Learning Materials were clear and understandable

80% of the teachers say learning materials are clear and understandable.

20% excellent.

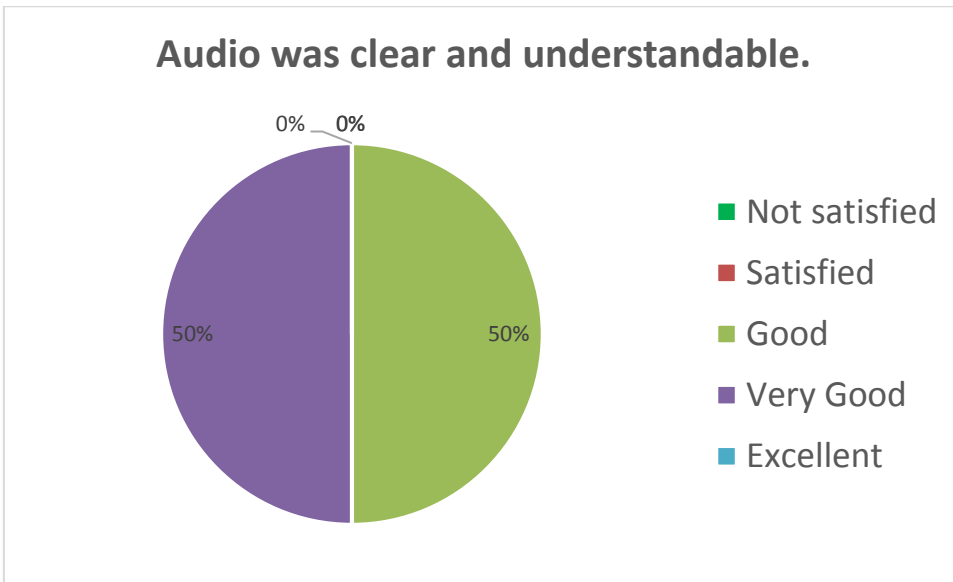


Figure 3: Clear and understandable audio

50% say it is very good.

50% good.

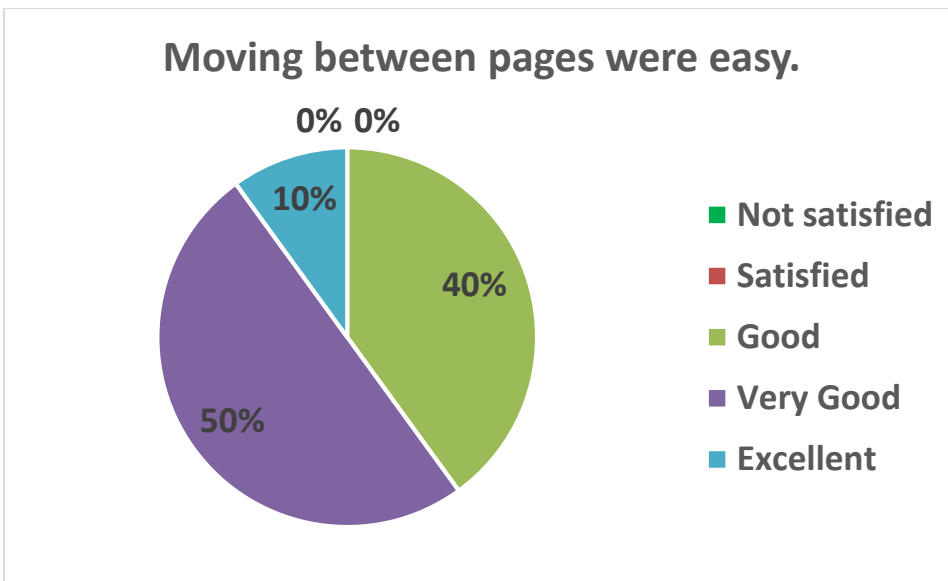


Figure 4: Moving between pages were easy

50% say it is very good.

40 say it is excellent.

10% say excellent.

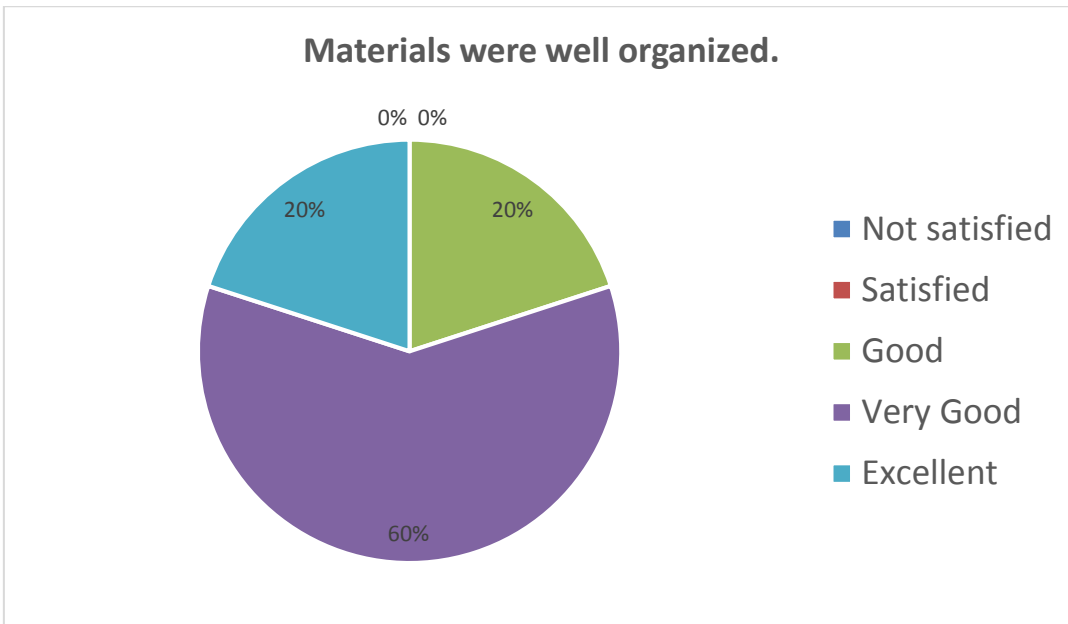


Figure 5: Learning Materials were well organized

60% say it is good.

20% say it is excellent.

20% say it is good.

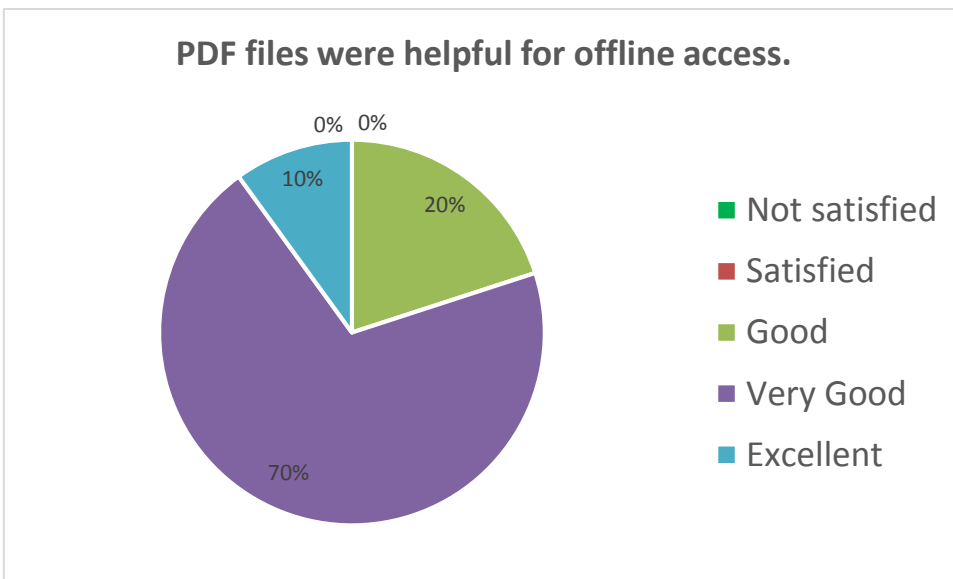


Figure 6: PDF files were helpful for offline access

70% say it is very good.

20% say it is good.

10% say it is excellent.

Evaluation Results of Course Activities

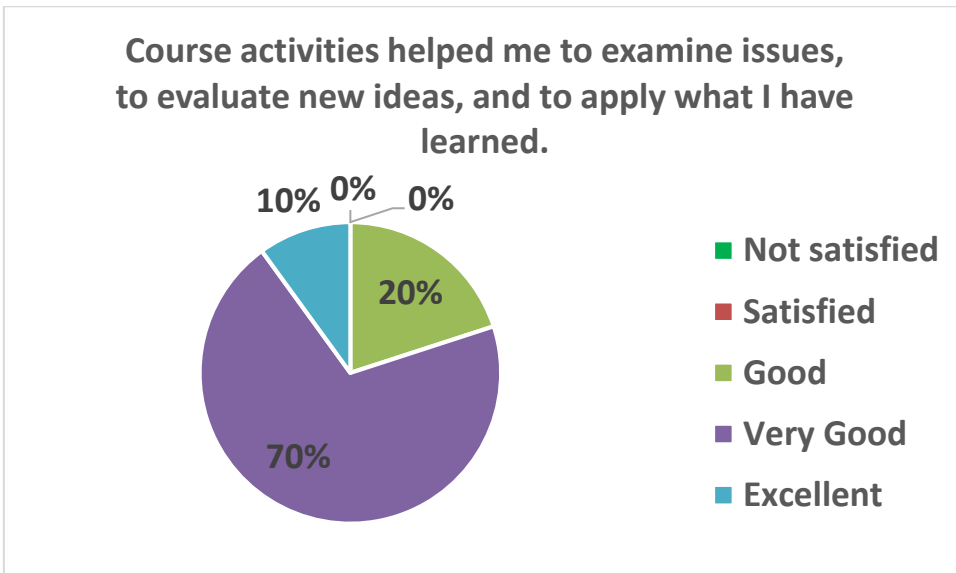


Figure 7: Course activities were helpful
 100% say it is excellent.

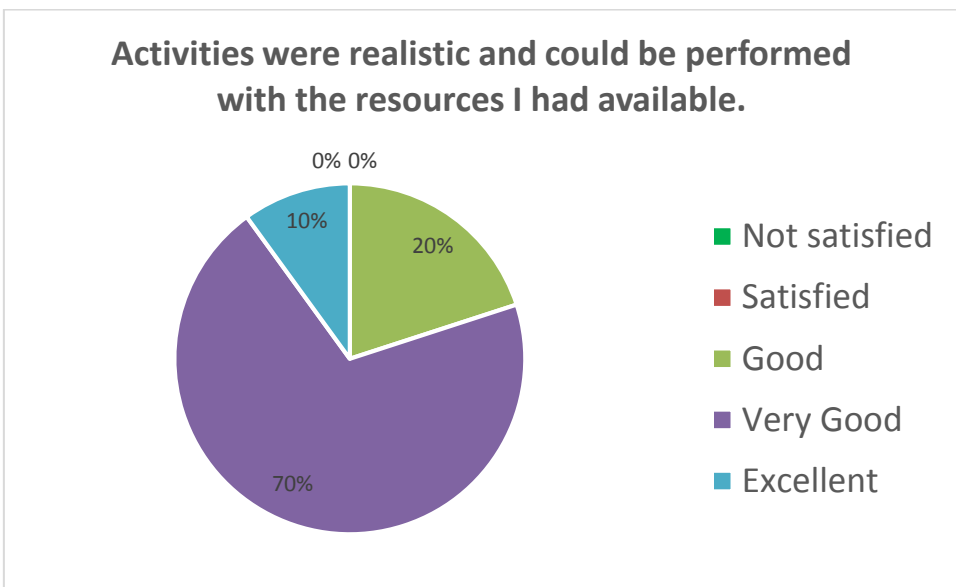


Figure 8: Clear course objectives
 70% say it is very good.
 20% say it is good.
 10% say it is excellent.

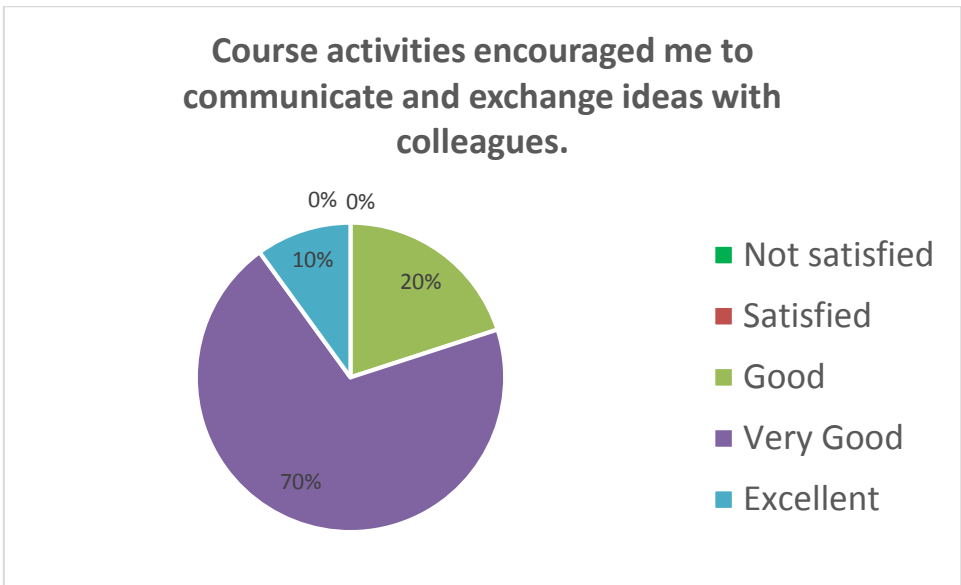


Figure 9: Course activities encourage me to communicate with ideas with friends
 70% say it is very good.
 20% say it is good.
 10% say it is excellent.

Overall

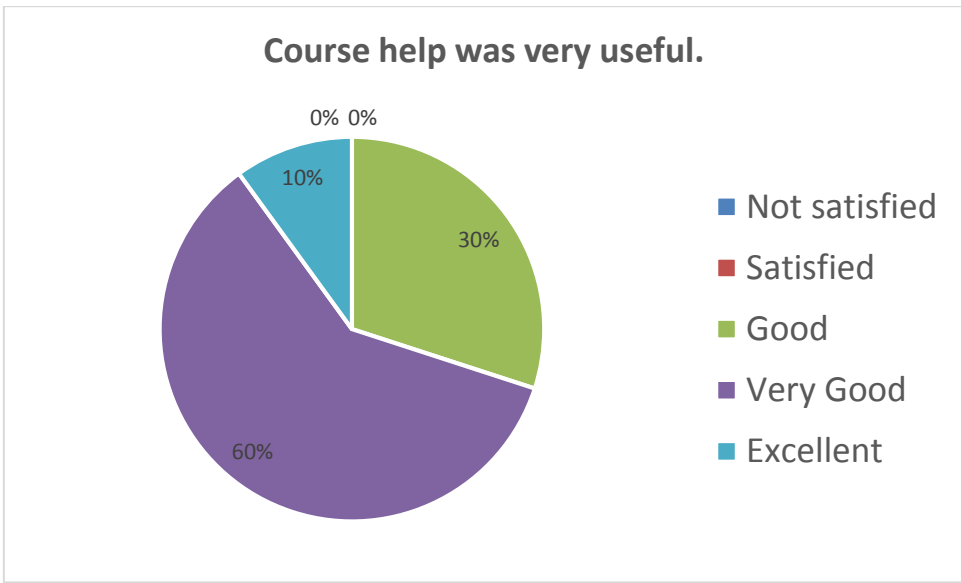


Figure 10: Useful course help
 60% say it is very good.
 30% say it is good.
 10% say it is excellent.

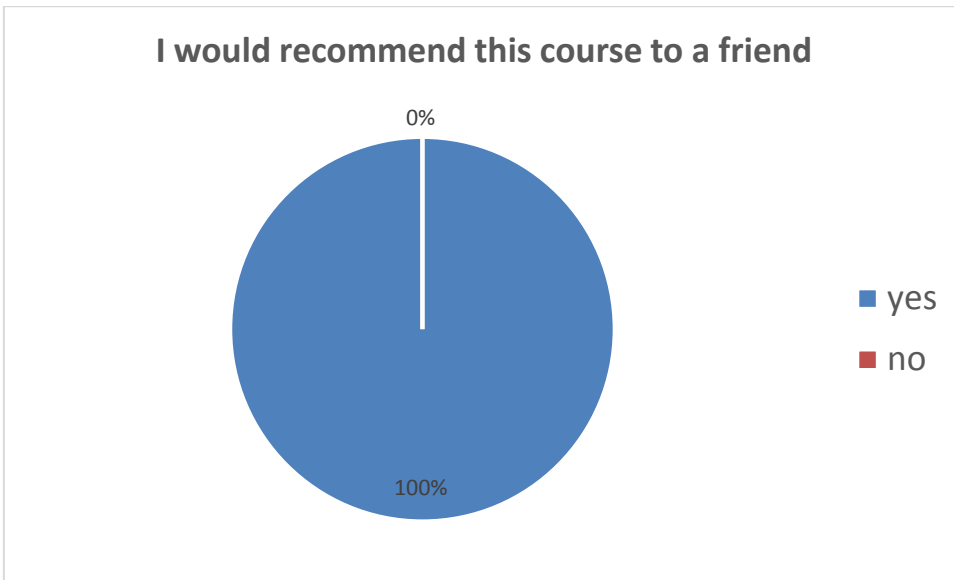


Figure 11: Recommend course to a friend
100% recommend the course to their friends.