UNIVERSITEIT TWENTE.

Bachelor Thesis

[201000166]

Teaching quantum mechanics using qCraft

Author:
Micha van den Enk
[s1004654]

Supervisors:
Dr. H. H. Leemkuil
Second supervisor

April 28, 2015

Contents

Preface

Analyses

Context Analysis

Needs Assessment

The condition

The problem

Cause of the problem

Is the solution learning

Instruction currently offered

Nature of the innovation

Learning goals

Priority and suitability

Learning Environment

Teachers

Existing curricula

Equipment

Facilities

Organization

Larger system

Learner Analysis

Stable Similarities

Sensory capacities

Information processing

Types and conditions of learning

Changing Similarities

Intellectual development processes

Language development processes

Psychosocial development processes

Moral development processes

Other development processes

Stable Differences

Aptitudes

Cognitive styles

Psychosocial traits

Gender, ethnicity, & racial group

Changing Differences

Intellectual development state

Other development state

General prior learning

Specific prior learning

Task Analysis

Learning goal

Types of learning

Information-processing analysis

Prerequisite analysis

Learning objectives

Test specifications

Theoretic Framework

Design

Development

Formative Evaluation

References