Analysis for Creating an Online Help Guide

DT PrepScanner Class II Cavity Prep Rubric Grading

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Executive Summary

Purpose

This document outlines a framework for creating an online help guide for the DT PrepScanner, a dental training tool designed to assist educators in evaluating various dental procedures. Based on a training video for Class II cavity preparations, the guide supports dental instructors and teams in achieving consistent, accurate, and efficient grading.

Target Outcomes

1. Equip dental educators with clear guidance for grading student work and customizing rubrics.
2. Enable instructors to generate detailed feedback for students.
3. Support team-based workflows with collaborative grading features.
4. Ensure new users can quickly adopt the tool through comprehensive onboarding.

Audience The guide is designed for dental educators, new app users, collaborative grading teams, and support staff.

Key Features of the Help Guide

- **Structured Content:** Organized using the DITA methodology into task, concept, and reference topics for easy navigation.
- **Focused Topics:** A prioritized list of 28 topics addressing primary and enabling objectives such as measurement tools, AI accuracy enhancements, rubric customization, and collaborative workflows.
- **Dynamic Output:** Delivered in HTML and Markdown formats for flexibility and compatibility.

Estimated Impact The guide will streamline the grading process, ensuring fairness, accuracy, and adherence to clinical standards. By improving the usability of the DT PrepScanner, the tool will enhance user confidence and foster consistent application of grading criteria across educational teams.

Development Timeline Given the 80-hour project constraint, a subset of critical topics will be completed, prioritizing the most impactful content areas. Full development of the guide is estimated at 126 hours, with flexibility to adapt to UI updates as needed.

Next Steps Approval of the outlined topic list and objectives is required to begin the development of the online guide.

For additional details or to provide feedback, please contact the author.

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Introduction

The task is to create an online help guide for DT PrepScanner. The final product is still undergoing UI changes, so I chose a similar product training video to create a sample topic list for the online help guide.

The public YouTube product training video with associated transcript is How to Create a Rubric and Grade a Class II Cavity Preps Using PrepScanner - Step-by-Step Tutorial.

Primary Audience

The guide should be relevant and actionable for the following primary audiences:

1. **Dental Instructors and Educators**
   - **Role**: Responsible for evaluating and grading student cavity prep submissions.
   - **Needs**: Clear guidance on using the dental grading app, configuring rubrics, and providing consistent, accurate feedback to students.
   - **Goals**: Ensure fair and objective grading while maintaining adherence to clinical standards.
2. **New Users of the Dental Grading App**
   - **Role**: May include both new instructors and support staff learning to use the app.
   - **Needs**: An introduction to the app's functionality, step-by-step instructions, and an overview of the grading process.
   - **Goals**: Quickly become proficient with the app and integrate it into their workflow.
3. **Dental Educator Teams**
   - **Role**: Groups of instructors collaboratively grading student submissions.
   - **Needs**: Information on collaborative features and workflows, including regrading and rubric updates.
   - **Goals**: Ensure consistency and efficiency in team-based grading.
4. **Support Staff or Administrators in Dental Education**
   - **Role**: May assist instructors in setting up rubrics or managing app configurations.
   - **Needs**: Detailed reference material on rubric templates, acceptable ranges, and app settings.
   - **Goals**: Provide technical and administrative support to facilitate the grading process.

Main Video Sections

The video tutorial can be broken down into the following logical sections:

1. Demonstration Overview and Initial Setup
2. Rubric Setup and Initial Measurements
3. Detailed Measurements and Qualitative Assessments

4. Grading Process and Student Submissions
5. Final Grading and Report Generation
6. Collaborative Grading and Post-Grading Actions

Video Breakdown

The main steps covered in the video are listed below:

- Logging into the dental grading app and accessing the instructor dashboard to review the model executed by the instructor.
- Configuring the educational rubric directly referencing the instructor's prep to establish the evaluation criteria, including both qualitative and quantitative measures.
- Demonstrating the measurement capabilities of the app, such as measuring the isthmus width, axial lingual inclination, dovetail width, gingival width, pulpal depth, and surface smoothness.
- Inputting the measured values into the rubric to assess conformity to the defined thresholds.
- Showing how instructors can grade student submissions by comparing their prep to the instructor's reference prep using the overlay feature.
- Allowing instructors to assign scores for the qualitative and quantitative metrics based on the student's prep.
- Generating a detailed report for the student with comprehensive feedback on their performance.
- Explaining the collaborative grading capabilities and the ability to review and regrading if the rubric is updated.
- So in summary, the video covered the key steps of setting up the rubric, measuring the prep, grading student submissions, and providing feedback through the dental grading app.

Help Guide Structure

The Darwin Information Typing Architecture (DITA) is a system for organizing information into clear, reusable sections called topics.

Topics are grouped into three types:

- Concept, which explains what something is;
- Task, which gives step-by-step instructions;
- and Reference, which provides detailed facts or data.

We're using DITA to create an online help guide for this training video. This approach makes the guide easy to use by breaking information into simple, focused topics that answer specific questions.

Primary and Enabling Objectives

Primary objectives are what the audience should achieve, and enabling objectives are the skills or knowledge required to support the primary objectives, based on audience needs and goals.

The list below ensures that the audience can achieve their main goals while developing the skills and knowledge required to use the dental grading app effectively.

Primary Objectives

1. **Effectively Grade Student Cavity Prep Submissions**
   ○ Use the dental grading app to evaluate and score student work based on defined rubrics.
2. **Configure and Customize Grading Rubrics**
   ○ Tailor rubrics with qualitative and quantitative criteria to align with course standards.
3. **Provide Detailed Feedback to Students**
   ○ Generate and share comprehensive reports that offer actionable insights for improvement.
4. **Ensure Consistency and Accuracy in Grading**
   ○ Use measurement tools, overlays, and rubrics to maintain clinical standards.
5. **Collaborate Efficiently with Team Members**
   ○ Work with other instructors to review and grade submissions collaboratively.

Enabling Objectives

1. **Understand the Dental Grading App Interface**
   ○ Familiarize with key features, navigation, and user interface elements of the app.
2. **Master the Use of Measurement Tools**
   ○ Learn to measure dimensions such as isthmus width, axial inclination, and pulpal depth.
3. **Use AI Tools to Enhance Accuracy**
   ○ Enable and disable AI-generated anatomical borders for precise evaluation.
4. **Set Up and Adjust Rubrics**
   ○ Configure rubrics and make updates as needed, understanding the impact of changes on grading.
5. **Compare Preps Using Overlay Features**
   ○ Analyze student submissions against reference models to identify deviations.
6. **Regrade Submissions After Rubric Updates**
   ○ Reassess student work following rubric adjustments to maintain consistency.
7. **Generate and Interpret Grading Reports**

- ○ Create detailed feedback reports and interpret them to provide meaningful insights to students.
8. **Implement Collaborative Grading Workflows**
    - ○ Understand the steps and tools for grading collaboratively with a team of instructors.

DT PrepScanner Help Topic List

A list of 28 topics was chosen to meet these primary and secondary objectives.

The topic hierarchy is organized based on its purpose and connection to the primary and enabling objectives, making it easier for users to navigate the content systematically.

Topics are listed below, grouped by primary objectives, then enabling objectives, with individual topics labelled and grouped by topic type (**Task**, **Reference**, **Concept**):

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1. Effectively Grade Student Submissions

Enabling Objective: Master the Use of Measurement Tools

- **Task**: Measuring Cavity Prep Dimensions
- **Reference**: Standardized Measurement Techniques
- **Reference**: Measurement Thresholds for Cavity Prep
- **Concept**: Why Are Accurate Measurements Important in Cavity Prep?

Enabling Objective: Use AI Tools to Enhance Accuracy

- **Task**: Activating and Disabling AI Tools
- **Task**: Using the AI Overlay for Comparison
- **Reference**: Features of AI Tools in the Dental Grading App
- **Concept**: Understanding AI-Generated Anatomical Borders

Enabling Objective: Compare Preps Using Overlay Features

- **Task**: Viewing and Comparing Cavity Prep Models
- **Reference**: Common Errors in Cavity Prep

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2. Configure and Customize Grading Rubrics

Enabling Objective: Set Up and Adjust Rubrics

- **Task**: Configuring the Cavity Prep Rubric
- **Reference**: Template for the Cavity Prep Rubric
- **Reference**: Evaluation Criteria for Cavity Prep

Enabling Objective: Manage Grading Rubric Updates

- **Task**: Regrading Submissions After Rubric Updates
- **Task**: Managing Grading Rubric Updates

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3. Provide Detailed Feedback to Students

Enabling Objective: Generate and Interpret Grading Reports

- **Task**: Generating Grading Reports
- **Reference**: Template for the Cavity Prep Grading Report

Enabling Objective: Compile and Communicate Feedback

- **Task**: Providing Feedback to Students

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4. Ensure Consistency and Accuracy in Grading

Enabling Objective: Understand the App Interface

- **Task**: Navigating the Dental Grading App Interface
- **Reference**: User Interface Elements of the Dental Grading App
- **Reference**: Glossary of Terms for Cavity Prep
- **Concept**: What Is the Dental Grading App?

Enabling Objective: Implement Collaborative Workflows

- **Task**: Assigning Roles in Collaborative Grading
- **Reference**: Collaborative Grading Workflow Overview
- **Reference**: Guidelines for Collaborative Grading

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5. Collaborate Efficiently with Team Members

Enabling Objective: Understand Collaborative Features

- **Concept**: What Is Collaborative Grading?
- **Concept**: Why Is Consistency Important in Grading?

Enabling Objective: Divide Grading Responsibilities

- **Task**: Dividing Grading Responsibilities

Help Guide Authoring Platform and Output Files

The guide will be authored using Oxygen XML Editor. Output help topic files will be delivered in HTML and Markdown format. These output files can be edited with any open-source tools.

Authoring Work Estimate

There are approximately 28 topics. An accepted industry guideline is about 4.5 hours to develop and write one topic. This guide will take roughly 126 hours or 3.15 weeks to complete.

This estimate is only for authoring help content. It does not include time for creating style guides or templates.

Work on the actual guide would begin when the topic outline has been finalized and approved.

As this industry project is limited to 80 hours total, then a subset of topics would be completed.