DENTAL LABORATORY PROCEDURES

COMPLETE DENTURES

Second South and South-East Asia Edition

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Volume One
Second South and South-East Asia Edition

Edited by

Robert M. Morrow, D.D.S., F.A.C.D., F.I.C.D
Associate Dean for Advanced Education,
Professor and Head, Postdoctoral Division,
Department of Prosthodontics,
The University of Texas Health Science Center
at San Antonio, Dental School,
San Antonio, Texas

Kenneth D. Rudd, D.D.S., F.A.C.D., F.I.C.D
Associate Dean for Continuing Education,
Professor of Prosthodontics, Department of Prosthodontics,
The University of Texas Health Science Center
at San Antonio, Dental School,
San Antonio, Texas

John E. Rhoads, D.D.S., F.A.C.D., F.I.C.D
Formerly Associate Professor, Prosthetic Dentistry,
University of the Pacific, School of Dentistry,
San Francisco, California

Adaptation Editor

Sanjna Nayar, M.D.S, Ph.D
Fellow, The International Congress of Oral Implantologists,
Master of the Implant Prosthetic Section,
The International Congress of Oral Implantologists
Professor and Head of the Department, Department of Prosthodontics,
Sree Balaji Dental College and Hospital,
Bharath Institute of Higher Education and Research,
Chennai, Tamil Nadu, India

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Effective Dentist–Technician Communication

Sanjna Nayar

CHAPTER OUTLINE

INTRODUCTION

The dentist and the technician are the incontrovertible warp and weft of the web of professional service, essential for engendering successful restorations. The technician input is based on the ability to translate oral vision into three-dimensional reality. Rapid evolution of dental technology has enhanced the use of indirect restorations, whilst reducing chair-side time. Therefore, flawless interaction between the dentist and the technician is the essential bedrock of successful indirect restorations. In fact, it makes optimum sense to have combined learning of latest research to ensure perfect delivery of outcome.

The dentist's ability is based on clinical reflection of biological factors, pathological concern and knowledge of mechanics. Verbal and non-verbal communication is the indispensable element of such human interaction. Such communication needs to be the harbinger of appropriate, accurate and opportune information transfer, for successful prosthodontic treatment. Conversely, lack of effective communication can lead to defective products (prosthetic appliance/dentures) and botched treatment.

Communication (from Latin 'communicate', meaning 'to share') is the activity of exchange of information between two or more participants in order to convey or receive the intended meanings through a shared system. Effective communication is a critical interpersonal skill all dentists should master. He/she must be understood clearly by colleagues, associates as well as paradental personnel. The laboratory technician is an important stakeholder in indirect prosthetic restorations. Effective communication between the dentist and technician is vital to preclude stress in the laboratory work. Apart from managing patient expectations, the consensual desired outcomes need to be lucidly conveyed to the laboratory, for ensuring an appropriate appreciation of both the endeavour and the anticipated results.

PARADIGM OF DENTIST–TECHNICIAN COMMUNICATION

The quality of dental care is maximised when dentist and technicians are communicating well. This communication may take place in person, in writing, over voice or technically through digital models. A survey of fixed prosthodontic laboratories conducted by Aquilino et al. identified consistent complaints from dental technicians of inadequacies in the quality of clinical products they received, as well as insufficient information on the work authorisation form (Farah et al., 1991). In 1994, a programme was developed to improve the quality of laboratory submissions and the returned product, facilitating laboratory communication (Maxson and Nimmo, 1997). Goodacre et al. offered specific recommendations for dental educators to address the ramifications and responsibilities of future dental practitioners

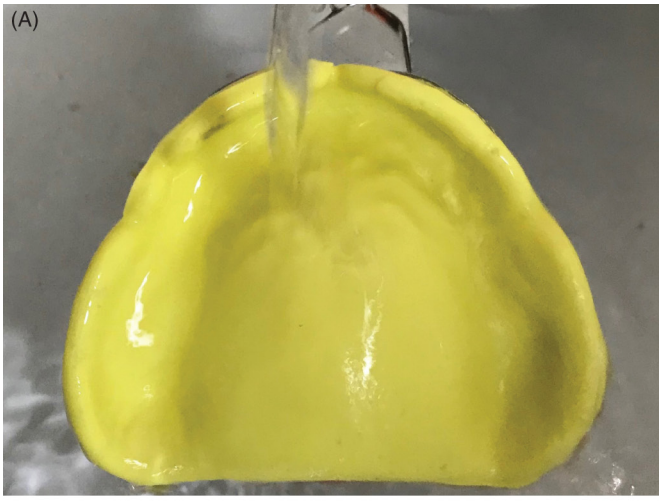

Fig. 2.4 Preliminary impression washed thoroughly in running tap water. (A) Maxillary impression and (B) mandibular impression

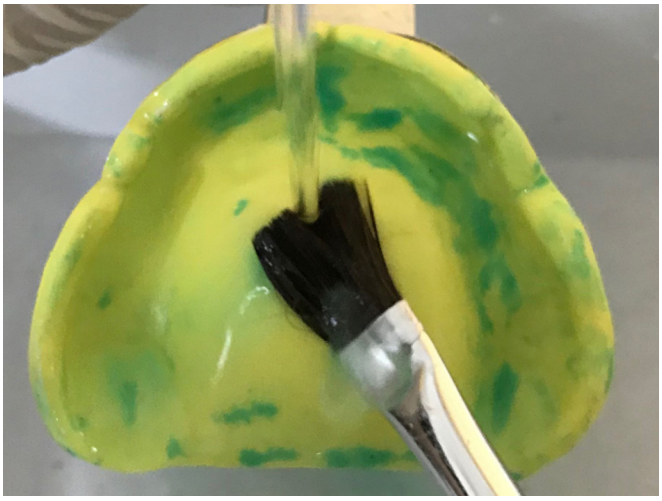

Fig. 2.6 Flush the impression with water to make certain that no model plaster remains on the impression

Fig. 2.7 Carefully remove excess moisture from impression with gentle stream of air

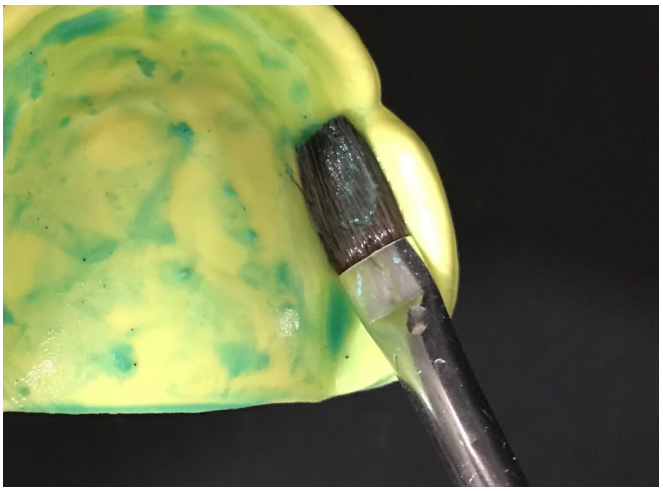

Fig. 2.5 Wet the impression and scrub in the model plaster gently with a soft camel's hair brush

camel's hair brush (Fig. 2.5). Flush the impression with water to make certain that no model plaster remains on the impression (Fig. 2.6).

3. Remove excess moisture from the impression with a gentle stream of air (Fig. 2.7). Do not use a strong blast of air because it can dislodge the impression material from the tray. Once loosened from the tray, it cannot be repositioned accurately. The surface of the alginate impression should not be absolutely dry; it should glisten or shine. However, no droplets or liquid film should be discernible. To prevent dehydration of the impression, mix the model plaster immediately. Usually, it is best to avoid creating tongue space with wax since it is difficult to make wax stick to the alginate, and the procedure requires more time.
4. With a sharp instrument (BP blade) trim excess alginate that extends beyond the back of the tray (Fig. 2.8A–B) and then immerse the impression in 2% gluteraldhyde solution for not more than 10min (Fig. 2.9). The impression is safely secured to the tray holder or two pieces of wood 1 × 2 inches (2.5 × 5 cm) have been fastened together with spacer between them and attached to case pan to support impression tray (Figs 2.10 and 2.11). This step prevents any alginate from touching the laboratory bench when the impression rests on it. If excess material comes in contact with the bench top, distortion of the impression could result. If presence of excess material is vital to the impression making trimming impossible, support the impression by the tray handle.

Fig. 21.43 Occlusion checked on the articulator

Fig. 21.44 Finished appliance—occlusal surface

Fig. 21.45 Finished appliance—tissue surface

Table 21.1 Troubleshooting Chart for Custom Mouth-Guard Construction

Problem	Probable Cause	Solution
[2,0] Mouth guard too thin to afford protection	Mouth-guard material too hot when adapted	Check the recommended heating time
	Cast too thick, resulting in over-thinning of material (tent effect)	Trim cast so base is approximately 5-mm thick in palate or properly cover the cast with pellets
	Cast not trimmed properly	Trim away deep vestibular extensions, which may cause bridging during adaptation
[1,0] Mouth-guard material did not adapt initially to cast	Hole not placed in palate of cast	Place a hole with a No. 8 bur in the palate to vent air and ensure adaptation in this area
	Material not hot enough for adaptation	Check the recommended heating time

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