

Qualitative Research Methodologies in the Health Sciences: An overview

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*There is no part of the **social world** that will remain boring after the aid of a little curiosity*

(Rock, 2001, p.32)

The limits of quantitative research

量的研究の限界

- ~ In order to meet methodological standards of objectivity in social science research (i.e. **quantifying** phenomena to create designs enabling **generalizability**; **classifying frequency and distribution** of phenomena to establish causal relations and their **validity** under **controlled conditions**) the subjectivity of the researcher and the participants are eliminated
- ~ By meeting methodological standards investigations and findings often are removed from everyday questions and problems
- ~ Results are rarely perceived and used in everyday life (Flick, 2009)
- Despite methodological controls, life intrudes
- The relevance factor

【研究の客観性】
・結果の**一般化**を可能にするため**現象を定量化**する。
・**制御された環境**下で因果関係とその**妥当性**を保つ
・**現象の頻度や分布を検証**する。
↓
研究者と研究協力者の「主観」は排除されてしまう。
↓
調査・結果は実生活から湧き上がる問いや問題とかけ離れてしまう可能性がある。

“ The goal of qualitative research:

to formulate subject- and situation-related statements which are empirically well-founded

(Flick, 2009, p. 12)

質的研究の目的:

経験に十分基づいた主観的、状況的な知見を明らかにすること

Joanna Briggs Institute

<http://joannabriggs.org/assets/docs/sumari/ReviewersManual-2011.pdf>

In the healthcare or medical context, qualitative research:

“...seeks to understand and interpret personal experiences, behaviours, interactions, and social contexts to explain the phenomena of interest, such as the attitudes, beliefs, and perspectives of patients and clinicians; the interpersonal nature of caregiver and patient relationships; the illness experience; or the impact of human suffering”.¹⁴

- ~ Allows researchers to analyse human experience and social phenomena
- ~ Seeks to analyse the complexity of human phenomena in naturalistic settings and from a holistic perspective
- ~ Methodologies: ethnography, phenomenology, action research, discourse analysis, grounded theory
- ~ Methods: interview, observation, interpretation of written material
- ~ 経験や社会的現象の分析
- ~ 俯瞰的な視点から「普段」の状況で起こる複雑な現象の分析
- ~ 方法論: エスノグラフィー、現象学、アクションリサーチ、グランデッドセオリー
- ~ 研究手法: インタビュー、観察、文書資料の解釈など

Joanna Briggs Institute: Qualitative Evidence & Health

Qualitative research is undertaken because it:

“...has an important role in evidence-based health care, in that it represents the human dimensions and experiences of the consumers of health care. This type of research does not answer questions concerning the effectiveness of health care; rather it provides important information about such things as the appropriateness of care and the impact of illness. It also provides a means of giving consumers a voice in the decision-making process through the documentation of their experiences, preferences, and priorities...”

- ~ Important role in understanding how individuals and communities perceive & manage health and make decisions related to health service usage
- ~ Can inform planners and policy makers about how users experience health/ illness and health services
- ~ 個人とコミュニティの健康に対する認識や健康維持の方法、また健康サービスの使用に関する決定プロセスについて理解できる。
- ~ 人々がどのように健康/病氣と健康サービスを経験しているのかをその責任者に示唆できる。

Keim RG. THE EDITOR'S CORNER - Lies, Damned Lies, and Statistics JCO. 2011;45(2):61-2.

"Qualitative research emphasizes pragmatic, practical, and clinically applicable decision making."

"Many experts in the clinical sciences now argue that qualitative research is generally more valid than statistically based quantitative research."

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"Clinicians should not consider quantitative and qualitative research to be polar opposites or mutually exclusive. Rather, these methods should be thought of as a continuum, with the practical "truth" lying somewhere in the middle."

Outline

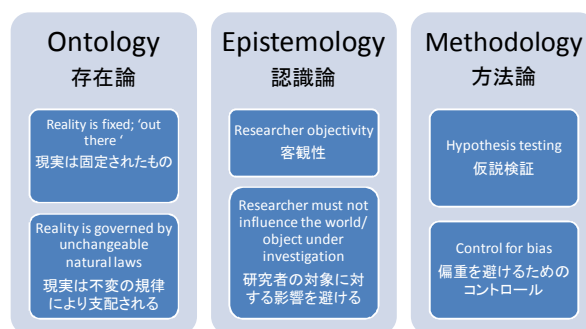
- “ Research paradigms
 - . Is there really a competition?
- “ Qualitative designs
 - . Clinical Sciences
 - . Medical Education

Forms of knowledge & research paradigms

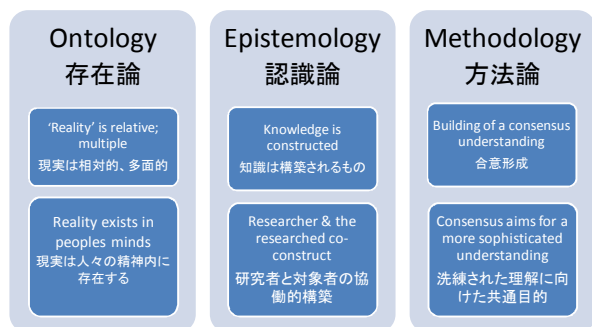
	Paradigm: パラダイム	
	Positivist: 実証主義	Interpetivist: 解釈主義
Research methods	Scientific; Experimental; Quantitative	Interpretive; Illuminative; Qualitative
Form of research knowledge	Objective explanation	Subjective; Interpretive
Research purpose	Technical; Instrumental	Practical; Deliberative

(after Carr, 1995)

Positivism: 実証主義



Interpretivism: 解釈主義



Approaches & Methods

- . Subjective viewpoints ~ Narrative interviews
- . Interactions ~ Ethnography
- . Reconstructing the structures of a social field ~ Textual analysis
- . Latent meanings of practice ~ Biography and narrative
- . Non-linearity ~ Grounded theory
- . Sampling ~ Case studies

Joanna Briggs Institute (2011)
Reviewers' Manual

Methodologies	Data Collection Methods
Phenomenology Seeks to understand people's individual subjective experiences and interpretations of the world.	Interviews.
Ethnography Seeks to understand the social meaning of activities, rituals and events in a culture.	Focus groups Observations. Field work. (Observations, Interviews) Interviews.
Grounded Theory Seeks to generate theory that is grounded in the real world. The data itself defines the boundaries and directs development of theory.	Field observations. Purposeful interviews Textual analysis.
Action research Involves researchers participating with the research to effect change.	Participative group work Reflective Journals. (Quantitative methods can be used in addition to qualitative methods).
Feminist research Seeks to create social change to benefit women.	Qualitative in-depth interviews. Focus Groups. (Quantitative methods can be used in addition to qualitative methods).
Discourse Analysis Assumes that language socially and historically constructs how we think about and experience ourselves, and our relationships with others.	Study of communications, written text and policies.

Methods +++
研究手法

- “ Questionnaires
 - Open-ended responses (開かれた質問・自由記載)
- “ Interviewing
 - One-on-one(一対一)
 - Focus groups(フォーカスグループ)
 - Stimulated (再生刺激法)
 - Narratives(ナラティブ)
- “ Case studies(事例研究)
- “ Observations(観察)
- “ Recordings(録音・録画)
- “ Journals(日記・ポートフォリオ)

Guba and Lincoln's four criteria for judging the soundness of qualitative research:

Traditional Criteria for Judging Quantitative Research	Alternative Criteria for Judging Qualitative Research
internal validity 内的妥当性	Credibility 信用性
external validity 外的妥当性	Transferability 移転性
Reliability (replicability) 信頼性	Dependability 確実性
Objectivity 客観性	Confirmability 確証性

Four criteria for judging the soundness of qualitative research

- 1) **Credibility 信用性**-研究参加者の視点から、データは信頼できるものであるか
 - results are credible or believable from the perspective of the participant in the research as the purpose of qualitative research is to describe or understand the phenomena of interest from the participant's eyes
- 2) **Transferability 移転性**-結果が他のコンテキストに移転できるか。
 - degree to which the results can be generalized or transferred to other contexts or settings
 - Enhanced by thoroughly describing the research context and the assumptions central to the research
 - Reader is responsible for making the judgment of how sensible the transfer is for their own context
- 3) **Dependability 確実性**-研究が明解であるか
 - emphasizes the need for the researcher to account for the ever-changing context within which research occurs
- 4) **Confirmability 確証性**-結果が他者により確かめられるか
 - degree to which the results could be confirmed or corroborated by others.
 - Researcher strategies:
 - document the procedures for checking and rechecking the data throughout the study.
 - actively search for and describe and *negative instances* that contradict prior observations.
 - conduct a *data audit* (post study) that examines the data collection and analysis procedures and makes judgements about the potential for bias or distortion.

See Lincoln Y and Guba E. Naturalistic Inquiry, CA: Sage (1985)

Q & A...

EXAMPLE 1.
THE RCT THAT NEEDED MORE.....
RCT以上に必要とされることは・・・

“As the RCT unfolded, it was discovered that practices in the intervention arm were not implementing the preventive protocols uniformly.

Connecting the dots .
what can qualitative research inform us?

Sbaraini A, Carter SM, Evans RW, Blinkhorn A. How to do a grounded theory study: a worked example of a study of dental practices. *BMC Med Res Methodol.* 2011, 11:128.

Why had the outcomes of these systematically implemented protocols been so different?”

“We wanted to answer a practical social problem: how do dentists persist in drilling and filling early stages of tooth decay, when they could be applying preventive care?”

What are your research design ideas?
あなたはどのような研究計画を立てますか。

実践的な社会問題に向けた答えを導くことをしたい。予防的なケアができる時、歯科医師は、初期の虫歯をどのように削り、治すのか。

This question was the starting point for our **grounded theory study**: We asked research questions that were open, and focused on social processes.

Grounded Theory

Adapted from: Sbaraini, A., Carter, S., Evans, R., & Blinkhorn, A. (2011). How to do a grounded theory study: a worked example of a study of dental practices. <i>BMC Medical Research Methodology</i> , 11(1), 123.		
COMPONENT	STAGE	DESCRIPTION
Openness	Evolves throughout the study	Inductive analysis (vs deductive hypothesis testing) moves from the particular to the general. Develops new theories or hypotheses from many observations. 帰納的分析
Analysing immediately	Analysis and data collection	Analysis must commence as soon as possible, and continue in parallel with data collection. できるだけ早く分析を開始すべき。データ収集と並行して継続されるべき。
Coding and comparing	Analysis	Coding > Comparing > Developing abstract categories or concepts. コーディング比較抽象的カテゴリーまたは概念へ
Memo-writing (sometimes also drawing diagrams)	Analysis	Analyst memo writing (events, cases, categories, or relationships between categories) to stimulate and record. 分析者のメモを書く
Theoretical sampling	Sampling and data collection	Analysis raises questions, suggests relationships, highlights gaps in the existing data set. Carefully selecting participants and by modifying the questions asked in data collection, the researchers fill gaps, clarify uncertainties, test their interpretations, and build their emerging theory. 分析は、収集したデータの関連性、ギャップを明らかにし、さらなる問いを呼び起こす。注意深く参加者を選び、データ収集で問われた質問を修正することにより、研究者はギャップを埋め、不確実だったことを明確にできる。また、その解釈を確認し、そこから浮かびあがる理論を構築する
Theoretical saturation	Sampling, data collection and analysis	Seek to reach theoretical 'saturation' 理論的 '飽和' に達するまで
Production of a substantive theory	Analysis and interpretation	Results expressed as a substantive theory. 結果→実質的な理論 Fallible, dependent on context and never completely final. 改善の可能性もあり、文脈に依存し、最終的なものではない

EXAMPLE 2. BEYOND PSYCHOMETRIC SURVEYING 心理測定によるサーベイを越えて

BUCHANAN, H., & COULSON, N. S. (2007). ACCESSING DENTAL ANXIETY ONLINE SUPPORT GROUPS: AN EXPLORATORY QUALITATIVE STUDY OF MOTIVES AND EXPERIENCES. *PATIENT EDUCATION AND COUNSELING*, 66(3), 263-269

Objective: In recent years, Internet access has grown markedly providing individuals with new opportunities for online information retrieval, psychological advice and support. The objectives of the present study were to explore the context through which dentally anxious individuals access an online support group and the nature of their online experiences.

近年、人々が、オンライン情報検索により心理的なアドバイスやサポートを得る新たな機会が急激に増えてきている。本研究の目的は、**歯科・口腔内のことについて心配する個人がオンラインサポートグループにアクセスする文脈や彼らのこうしたオンラインの経験について調査することにある。**

What are your research design ideas?
このテーマについて、あなたはどのような研究計画を立てますか。

Methods: An [online questionnaire](#) was completed by 143 individuals who accessed the Dental Fear Central online support group bulletin board. [Qualitative analysis](#) was conducted on the responses.

方法:

- ~ 歯科恐怖のサポートグループ内の掲示板を利用した143名
- ~ オンラインによる質問紙調査
- ~ 質的分析

Box 1. Questions posed to participants

In your own words, could you tell us why you decided to participate in an online support group?

In your view, has being a member of an online support group made any difference to how you cope with your dental anxiety/phobia? If so, could you give some examples?

What do you consider to be the main advantages of participating in an online support group?

Are there any problems you have experienced in participating in an online support group?

Results:

Analysis revealed **three emergent themes** which reflected the motives and experiences of individuals:

- 'Searching for help' (助けを求めること),
- 'Sharing fears' (恐れ共有)
- and 'I feel empowered'. (元気づけ)

Conclusion:

This exploratory study suggests that for most individuals accessing this online support group was a positive and beneficial experience.

オンラインでの経験は、とても有益な経験であったといえる。

Practice implications:

Online support groups may represent a convenient and beneficial tool that may assist certain individuals to confront their debilitating anxiety/phobia and successfully receive dental care.

オンラインサポートグループは、人々に歯科治療に対する不安や恐怖に向き合わせ、問題なくその治療を受けるよう手助けする有効な手段といえる。

EXAMPLES 3 & 4. STIMULATED RECALL..... 記憶を呼び起こす(再生刺激法)...

Eliciting open-ended responses in clinical studies

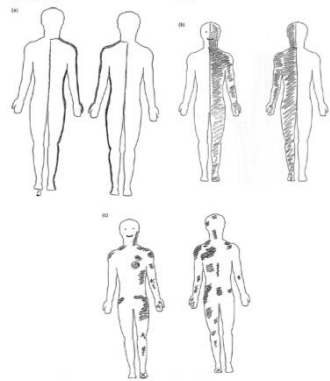
開かれた返答を引き出すために:臨床研究の場合

Löfvander, M., Lindström, M. A., & Masich, V. (2007). Pain drawings and concepts of pain among patients with "half-body" complaints. *Patient Education and Counseling*, 66(3), 353-360.

Objective: To explore main features of pain drawings and concepts about illness in patients seeking help for "half-body" complaints at two primary health care centres in different parts of Sweden.
Pain drawings (痛みのデッサン)の特徴と半身の不調の訴えに関する病気についての調査

Methods: A qualitative study of pain-drawings and tape-recorded semi-structured interviews analysed by qualitative methods in 20 patients (4 men, 16 women, aged 37–68 years) from five health centers. Three of them were native Swedes and 17 were foreign-born.
半構造化インタビューでの痛みのデッサン(質的研究)

Figure 1: (a) Diagram of pain drawing (the blackly shaded body) with a line in the middle of the "half" (n=6). (b) Diagram of pain drawing (the "half-body" with half of shaded) and pain in the "face" (n=4). (c) Diagram of pain drawing (the "half-body" with half of shaded) and pain in the "face" (n=4).



Results: All complained of pain in a left (three-fourth) or right (one-fourth) body-half, mainly in front.

Some had general pain with a "worse side". Many said they had pain only on the "edges" and outlined the margins on the side of pain, but excluded the "face".

Posterior drawings often received a line in the middle dividing the body in lateral halves.

Pain was referred to as a "growing" thing – ("it") – that could spread ("jump") to the other side, grow and eventually paralyse them. "It" was believed as caused by body imbalance, natural factors or supernatural forces.

Conclusion: "Half-body" pain was an expression that in main was used by middle-aged patients to denote an initially superficial and frontal one-sided pain that could spread and become dangerous to their health.

Löfvander, M., Lindström, M. A., & Masich, V. (2007). Pain drawings and concepts of pain among patients with "half-body" complaints. *Patient Education and Counseling*, 66(3), 353-360.

Practice implications: Patients with half-body complaints should be taken seriously and met with respect by doctors and other health care personnel, particularly in cross-cultural consultations.

半身といっても、痛みの状態や箇所、性状など、さまざまである。

医師と他の医療従事者は、半身の不調を持つ患者に対して、慎重に尊敬の念を持って向き合う必要がある。(特に多文化の診療において)

Eliciting open-ended responses in medical education research 開かれた反応を引き出す

Bridges, S. (2015). An emic lens into online learning environments in PBL in undergraduate dentistry. *Pedagogies: An International Journal*, 1-16.



This small-scale ethnographic study aims to explore two 'black boxes' in PBL – self-directed learning and the influence of educational technologies on the PBL learning process. In doing so, this study takes an emic approach to explore self-study practices among senior students.

Specifically, this study addresses the question, *How are educational technologies consequential to student learning within and across the PBL cycle?*

自己主導型学習とテクノロジーが学習過程に及ぼす影響の調査

高学年の自習の状況を理解するために「内部からの視点(イミック)」により調査。

テクノロジーがPBL内やPBLを越えた文脈での学習において、どのくらい重要なのか

Bridges, S. (2015). An emic lens into online learning environments in PBL in undergraduate dentistry. *Pedagogies: An International Journal*, 1-16.

The collection of recordings over time included:

研究対象者は香港大歯学科生 1名

- videos of in-class tutorial learning, - テュートリアルでの学習の様子の録画
- Camtasia™ screen capture recordings of self-directed online work, and - オンライン上の自習の様子を Camtasia screen captureで記録
- a video and screen capture of a stimulated recall interview session. - テュートリアル動画と自習の記録を見せながらの、再生刺激法(インタビュー)
- The stimulated recall interview was conducted with the student (S) controlling the playback of the screen recording from the initial self-directed learning conducted in the computer laboratory. The interviewer (I) then provided prompts to further elicit thought processes whilst conducting online searching. - 全ての動画・音声データはTransanaを使い文字おこしを行なった
- All recordings were transcribed using Transana™.

Flexible knowledge

- recall interview - understanding of the learner of PBL as a pedagogic approach & the role of self-directed learning. - 再生刺激法:彼は、教育的アプローチとしてのPBLや自己主導型学習の役割を十分理解していた
- SDL activity was a direct result of artefacts and talk within the first tutorial and the SDL online resources he accesses. - 自己主導型学習活動は、初めのチュートリアルでの議論やグループプロダクト、またオンライン情報検索の結果によるところが大きい
- At the close of the online session, the student shared the articles from the online search with his PBL group via email. - 彼が学習コミュニティへの資料の共有したことは、彼の協力的な知識構築プロセスの理解を反映している。
- final distribution of resources with the collective learning community at the end of his initial information gathering session also reflects his understanding of his role in the collaborative knowledge-building process that is PBL.

Intervisual links

- identifying the intervisual links between the PBL stimulus images and online 3-D models and the issues identified by the group on the printout - オンライン資料、クラスで使用した画像、モデルを同じものであると認識すること
- referential tie between the online support materials and the in-class images and solid models.

Discourse Analysis

“We are in a very different world, then, from that proposed by common sense or scientific reason, where language merely reflects, or corresponds to, a pre-existing reality... The linguistic turn has insisted that **all truths are textual**; that **the way we see the world is ‘always already’ infected by language.**”

MacLure, 2003, p. 4

Analysis

- 1) Within texts:
 - . Interaction patterns インタラクション(やりとり)のパターン
 - . Argumentation structures 討論(論証)の構造 etc
- 2) Across texts:
 - . Discourse structures (patterns, sequences) e.g. questions 談話構造(パターン、シーケンス) e.g. 質問の仕方
 - . Comparison of group interactions グループ間のインタラクションの比較

Positivism
実証主義

Interpretivism
解釈主義

Ontology
存在論

Reality is fixed; 'out there'
現実固定されたもの

Reality is governed by unchangeable natural laws
現実不変の法則に支配される

Ontology
存在論

'Reality' is relative; multiple
現実相対的; 多面的

Reality exists in people's minds
現実は人の心の中に存在する

Positivism
実証主義

Interpretivism
解釈主義

Epistemology
認識論

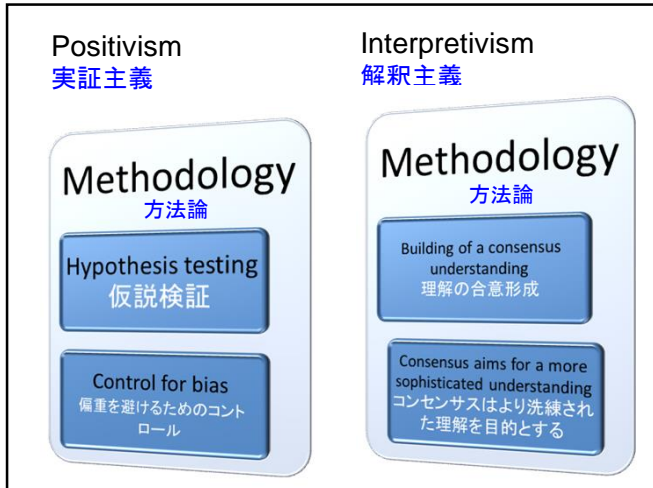
Researcher objectivity
客観性

Researcher must not influence the world/ object under investigation
研究者は調査対象に影響をおよぼすべきではない

Epistemology
認識論

Knowledge is constructed
知識は構築されるもの

Researcher & the researched co-construct
リサーチャー & 調査対象の協働



Keim RG. THE EDITOR'S CORNER
Lies, Damned Lies, and Statistics
Journal of Clinical Orthodontics.2011;45(2):61-2.

"Clinicians should not consider quantitative and qualitative research to be polar opposites or mutually exclusive. Rather, these methods should be thought of as a continuum, with the practical "truth" lying somewhere in the middle."

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EXAMPLE 5.
MIXED METHODS....
量的研究と質的研究の混合...

Clinical communication: A mixed methods approach

Bridges S.M., McGrath C.P.J., Yiu C.K.Y. and Cheng S.S. (2010). 'Reassuring' during clinical examinations: Novice and expert talk in dentistry. *Journal of Asian Pacific Communication*, 20 (2). 185-206

Background: Novices and experts alike must engage in the interactional complexities of clinical consultations as a form of **institutional talk**.

新米も熟練者も制度的トークである複雑な臨床相談に従事しなければならない。

Objectives: To identify areas of relative communicative weakness for undergraduate student dentists (novices) and examines the mechanisms by which an experienced dentist (expert) interactionally accomplishes these.

歯学生(新米)のコミュニケーションの弱みを特定する
熟練した歯科医(エキスパート)の話し方を調査する

Methods: 51 student dentists were rated using a **360° approach** during a single clinical consultation using an **established scale** in dentistry (Theaker, Kay, and Gill, 2000). 1 experienced dentists' consultation was audio recorded, and analysed using **Conversational Analysis (CA)**.

方法:
1) 51名の歯学生が臨床相談での患者とのコミュニケーションを360度評価
2) 経験豊かな歯科医と患者間のコミュニケーションを録音

Results: **Descriptive statistical analysis** identified areas of relatively lower communication performance with **'giving reassurance'** during the 'examination' stage consistently rated as the least accomplished skill.

記述統計により診察の段階では「reassurance安心感を与えること」は低いことがわかった

Conversational strategies are identified in the process of an experienced dentist and a patient co-constructing 'reassurance'.

会話ストラテジーより、経験豊かな歯科医と患者は「reassurance安心感を与えること」を共に構築している。

Conclusion: 'Reassurance' is interactionally accomplished by experienced dentists as a **two-way process**.

経験豊かな歯科医は双方のプロセスで「reassurance安心感を与えること」を達成している。

Multivariate framework

- How do their patients, clinical interactants, and observers perceive student dentists' communication skills in a multilingual Asian context?
香港での研修歯科医のコミュニケーションスキルを患者、医療従事者、指導医はどのようにとらえたか。
- How can examination of an experienced dentist and a patient's real-time talk identify interactional strategies that support successful clinical dental consultations?
経験のある歯科医と患者間のコミュニケーション円滑な歯科コミュニケーションとは。

Diagnosis delivery: Building consensus 合意形成

Dr:	俾係下面果嘅就() 比較深啲 因為之前() 呢幾隻係比較() din hai has min gwo go zau () bei gau sam laa jan wai zi cin () ni gei zek hai bei gau () = But the lower is () comparatively deeper cause before () these teeth were () =	でも下のほうは() 以前は、比較的深いところに原因がありました() この歯は()
P:	我地洗過好多次喇喇 =ngo dei sai gwo hou do si laa wop = =we had scaled that area many times already=	その時は、何度も歯石取りはしましたよ
Dr:	犀利() 係啲() 我地重復都嘗試過 =sai lei () hai laa () ngo dei cung fuk dou soeng si gwo = =True () Yes () We tried that repeatedly.	確かにそうですね、うん、何度もしました。
P:	係呀 hai aa Yes	はい。

DCCC (Theaker et al., 2000) rater frequencies (%) for %Gives reassurance+

Bridges S.M., McGrath C.P.J., Yiu C.K.Y. and Cheng S.S. (2010). 'Reassuring' during clinical examinations: Novice and expert talk in dentistry. *Journal of Asian Pacific Communication*, 20 (2), 185-206

Example 1: "Just cut a little bit"

- Reaching consensus 合意形成
- Shared decision-making (rhetorical questions) 意思決定の共有
- Topic avoidance, softening terms & circumlocution 話題の回避、柔らかい表現、婉曲表現
- Modifying intonation イントネーションの修正
- Seeking and signaling 'reassurance' 「安心感を与える」よう努め、そのシグナルを送ること

219 Dr: 但係下面果嘢就()比較深啲 因為之前()呢幾隻係比較()
 daan hai haa min gwo go zau () bei gau sam lau jan wai zi cin () ni gei zek hai bei gau () =
 But the lower is () comparatively deeper cause before () these teeth were () =
 220 P: 我哋洗過好多啲嘢
 =ngo dei sai gwo hou do ci laa wu =
 =we had scaled that area many times already =
 221 Dr: 犀利()係啲()我哋重復都嘗試過
 =sai lei () hai laa () ngo dei cung fuk dou soeng si gwo
 =True () Yes, () We tried that repeatedly.
 222 P: 係呀
 hai aa
 Yes

Dr: でも下のほうは() 以前は、比較的深いところに原因がありましたね() この歯は()
 P: その時は、何度も歯石取りはしましたよ
 Dr: 確かこそうですね。うん、何度もしました。
 P: はい、

223 Dr: 唔好冚家都驚() 就係向佢() 做一啲少少嘢() 呢少少係係啲() 好簡單() er()
 向佢() 做一啲少少嘢() 就係向佢() 做一啲少少嘢() 呢少少係係啲() 好簡單() er()
 gam ngo ji gaa gin ji bei nei ni () zau wui tung nei haa lei haa () zou jat go siu siu ge sau
 seot () go siu sau seot hai dim ge ni () hou gau daan () er () tung gwo wong ngo dei zou
 sam cang ge cing sai hai jat joeng () ngo dei wui lok maa zoei joek zi haa ni nei () m hai hou
 gok tung gaa laa =
 Now I suggest you () we may consider () doing a small surgical procedure () What is that
 surgery? () Simple () er () like we did the deep scaling before () We will apply some LA,
 you () won't feel pain =
 224 P: 唔
 [ng]
 [Mm]
 225 Dr: 一般() 鑲之後我哋就將佢() 牙齒呢() 預開()
 jat ding () gam jin zi haa ngo zau wui zoenng nei di ngaa jak ni zau () kin hoi keoi () =
 Anyway () then I will () open the gum on your teeth () =
 226 P: 唔
 [ng]
 [Mm]
 227 Dr: 我() 齊個() 齊個() 齊個() 齊個()
 ngo wui () gai hoi gam soeng kin hoi jin zi haa =
 I will () cut and open the gum on your teeth and then =
 228 P: 唔
 [ng]
 [Mm]
 229 Dr: 洗() 洗() 洗()
 =sai gon zeng keoi () hou m hou aa ()
 =I will clean it through () is that OK? ()

Dr: そうすると、ちよつとした外科的な処置をしたほうがいいのかもありませんね。どんなことするかは、簡単に言えば、以前に歯茎の深いたところにある歯石取りをしたようなことと同じですよ。麻酔を使うので、そこまで痛くないと思います。
 P: はい
 Dr: まずは、この歯茎を開いて
 P: はい
 Dr: そこを切って、開いて、それで
 P: はい
 Dr: 完全にきれいにしますね。よろしいですか。

Directions: Systematic reviews of qualitative studies

- Cochrane reviews
http://handbook.cochrane.org/chapter_20/20_qualitative_research_and_cochrane_reviews.htm
- Joanna Briggs Institute
<http://joannabriggs.org/assets/docs/sumari/ReviewersManual-2011.pdf>

Joanna Briggs Institute
 Reviewer Manual 2011

Appendix IV – QARI critical appraisal tools

Criteria	Yes	No	Unclear	Not Applicable	Comment
1) There is congruity between the stated philosophical perspective and the research methodology.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
2) There is congruity between the research methodology and the research question or objectives.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
3) There is congruity between the research methodology and the methods used to collect data.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
4) There is congruity between the research methodology and the representation and analysis of data.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
5) There is congruity between the research methodology and the interpretation of results.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
6) There is a statement locating the researcher culturally or theoretically.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
7) The influence of the researcher on the research, and vice-versa, is addressed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
8) Participants, and their voices, are adequately represented.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
9) The research is ethical according to current criteria or, for recent studies, there is evidence of ethical approval by an appropriate body.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
10) Conclusions drawn in the research report do appear to flow from the analysis, or interpretation, of the data.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>

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PBL 2.0: Blended learning for an interactive, problem-based pedagogy
 Susan M Bridges, Michael G Botelho, Peter C S Tsang

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