Language Analysis to Interpret and Act on Written Patient Experience Feedback

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Quality Trifecta

- Clinical Effectiveness
- Patient Safety
- Patient Experience

Departmental Report 2009

Department of Health

7.89 Local providers and commissioners have piloted methods of collecting and using patient and public feedback to help improve the design and quality of services. The PPE Division is working with these pilots and with SHAs to stimulate the widespread and systematic adoption of methods of collecting and using real-time patient experience feedback across the NHS.

THE MID STAFFORDSHIRE
NHS FOUNDATION TRUST
PUBLIC INQUIRY

Chaired by Robert Francis QC

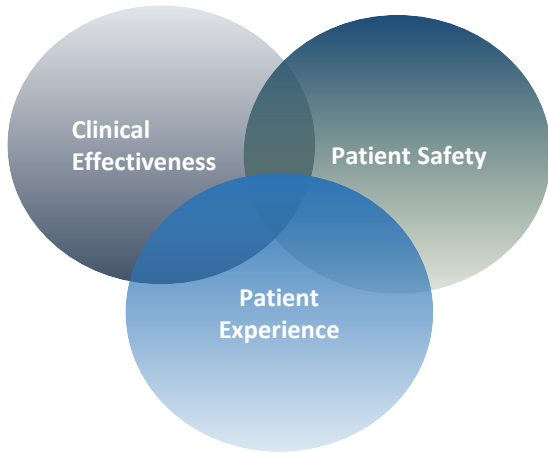| Using patient feedback	Results and analysis of patient feedback including qualitative information need to be made available to all stakeholders in as near "real time" as possible, even if later adjustments have to be made.

THE NHS FRIENDS AND FAMILY TEST
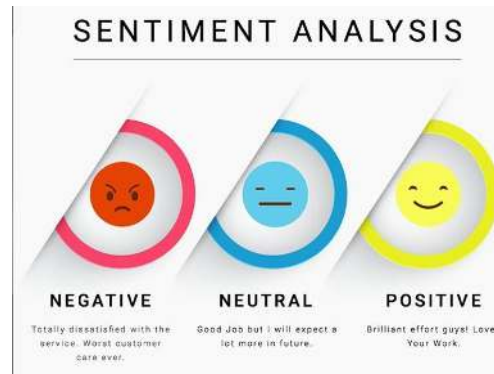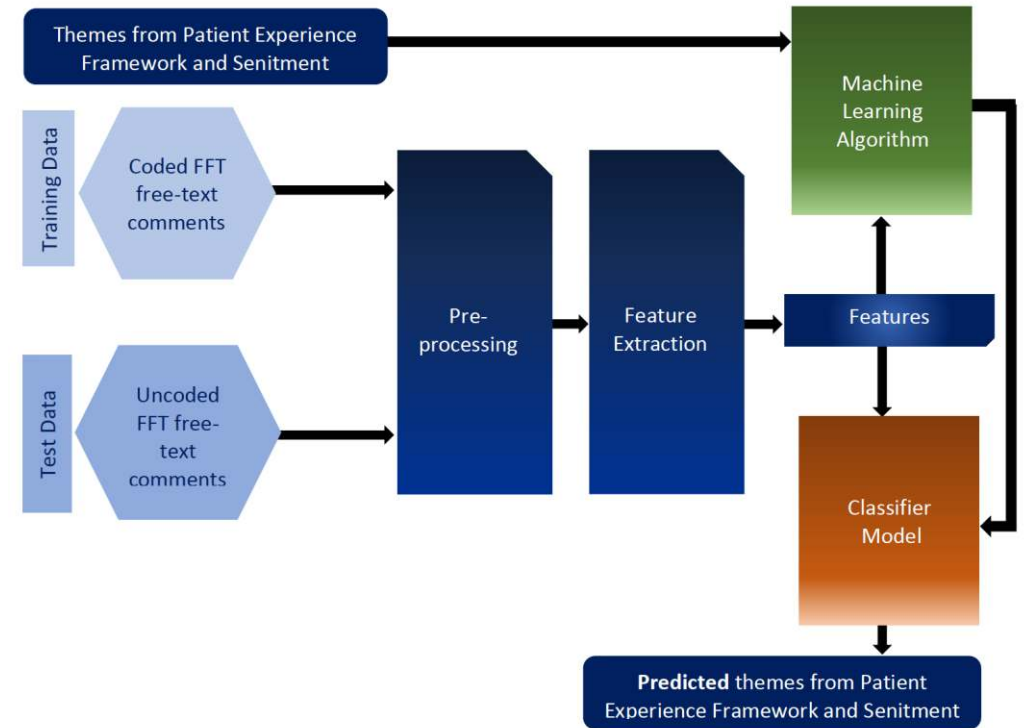
We would like you to think about your recent experience of our service.
How likely are you to recommend our dental practice to friends and family if they needed similar care or treatment?

Extremely Likely	Likely	Neither likely or unlikely	Unlikely	Extremely Unlikely	Don't Know
☐	☐	☐	☐	☐	☐
☺	← →			☹	?

- Fixated on scores
- Focus on response rates
- Free text-comments not analysed

Imperial College Healthcare NHS Trust

Imperial College London

The Health Foundation

NIHR | National Institute for Health Research

Staff appreciate feedback in the patients' own words as this makes the comments seem more 'real'

Frontline staff do not have access to this data, only used by at divisional/directorate level (given little priority)

High volume of free-text comments – lack of time

Need innovative method to analyse free-text data

NHS Patient Experience Framework

In October 2011 the **NHS National Quality Board (NQB)** agreed on a working definition of patient experience to guide the measurement of patient experience across the NHS. This framework outlines those elements which are critical to the patients' experience of NHS Services.
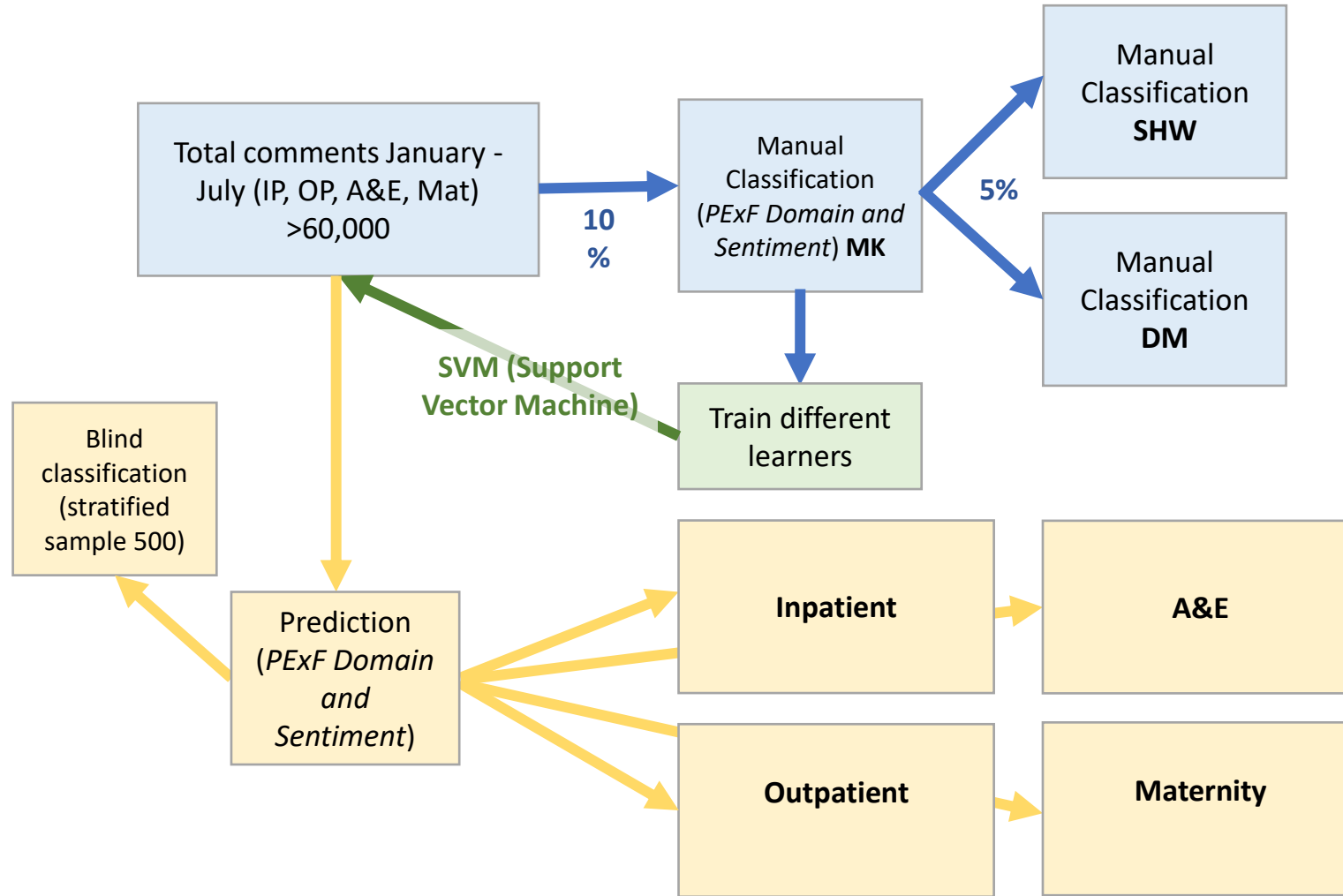
- **Respect for patient-centred values, preferences, and expressed needs,** including: cultural issues; the dignity, privacy and independence of patients and service users; an awareness of quality-of-life issues; and shared decision making;

- **Coordination and integration of care** across the health and social care system;

- **Information, communication, and education** on clinical status, progress, prognosis, and processes of care in order to facilitate autonomy, self-care and health promotion;

- **Physical comfort** including pain management, help with activities of daily living, and clean and comfortable surroundings;

- **Emotional support** and alleviation of fear and anxiety about such issues as clinical status, prognosis, and the impact of illness on patients, their families and their finances;

- **Welcoming the involvement of family and friends,** on whom patients and service users rely, in decision-making and demonstrating awareness and accommodation of their needs as care-givers;

- **Transition and continuity** as regards information that will help patients care for themselves away from a clinical setting, and coordination, planning, and support to ease transitions;

- **Access to care** with attention for example, to time spent waiting for admission or time between admission and placement in a room in an in-patient setting, and waiting time for an appointment or visit in the out-patient, primary care or social care setting.
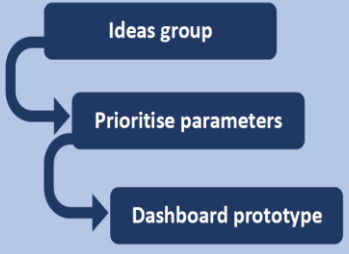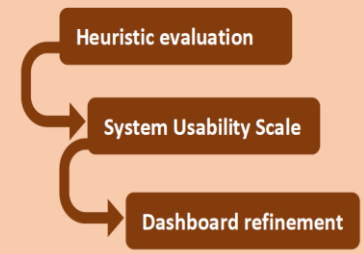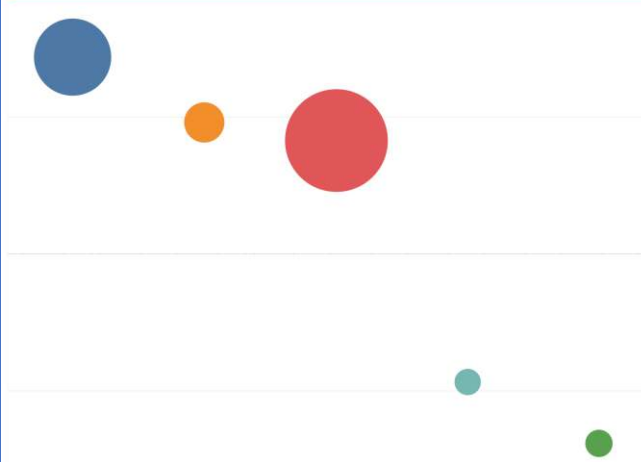
SENTIMENT ANALYSIS

NEGATIVE — Totally dissatisfied with the service. Worst customer care ever.

NEUTRAL — Good job but I will expect a lot more in future.

POSITIVE — Brilliant effort guys! Loved Your Work.

Themes from Patient Experience Framework and Senitment

Training Data — Coded FFT free-text comments

Test Data — Uncoded FFT free-text comments

Pre-processing → Feature Extraction → Features

Machine Learning Algorithm

Classifier Model

Predicted themes from Patient Experience Framework and Senitment

STAGE 1

Dashboard development

- Ideas group
- Prioritise parameters
- Dashboard prototype

STAGE 2

Dashboard testing

- Heuristic evaluation
- System Usability Scale
- Dashboard refinement

Participatory co-design process

TO IMPROVE

DOING WELL

January 2017 August 2018

Access to care | Transition and continuity | Physical comfort | Welcoming the involvement of famil.. | Coordination and integration of care

Respect for patient-centred value.. | Emotional support | Staff | Information, communication, an.. | Coordination and integration of care

30/07/2018.. couldnt think of anything apart from tv, one might nurse with crisp (cantread) noise	31/07/2018.. Look after me after major surgery
30/07/2018.. patient discharge need to be improve (we wait for a long time to get the medicine)	31/07/2018.. Completed my surgery successfully I was happy with results and was given realistic expectations. Most of the nurs
30/07/2018.. The radiators walls on the wards are in really poor condition. The cleaning staff donwhat they can but a paint and	31/07/2018.. Caring
30/07/2018.. Clear guidance on what medication can/can't be taken prior to surgery	31/07/2018.. The floors were cleaned and bin liners inside the bed and bathroom were changed each day. The staff were very
30/07/2018.. Generally more staff would help alleviate the pressure on the care team. They do wonderful work but seem a little	31/07/2018.. I do not feel have received better care anywhere else. It has been excellent.
30/07/2018.. Waiting time.	30/07/2018.. Endless kindness and attention to detail. Thankyou very much,yet again!
30/07/2018.. Nothing on the medical side.	31/07/2018.. Polities of all staff prior and after the procedure
30/07/2018.. A/C in the waiting area TV for patients/friends waiting.	30/07/2018.. Everything
30/07/2018.. Too much waiting.	30/07/2018.. All as well as I would expect
30/07/2018.. Air Conditioning!!!! through out waiting area.	30/07/2018.. Organized and managed well
30/07/2018.. Could do with more staff generally.; wider choice of food (after ten weeks it was getting repetitive!)	30/07/2018.. Staff explained what was going to happen regarding the procedure. Very clear communication and helpful, that he
30/07/2018.. I had a terrible experience with nurse Patricia, who was very rude and indelicate with me and my visitors. Her trea	30/07/2018.. Excellence in all staff
30/07/2018.. They were not very useful with my allergies when sorting out food	30/07/2018.. In all areas.
30/07/2018.. More options for breakfast Ex. Cheese slices, honey, nutella	30/07/2018.. .night shift have to improve
30/07/2018.. Nothing.	30/07/2018.. I was well looked after
30/07/2018.. Hand over between shifts and knowledge sharing	30/07/2018.. Looking after patients well and the doctor describe the procedure very well
30/07/2018.. Supply healthier food.	30/07/2018.. Everyone so friendly and professional

(All)
- 4 North-Imperial Vei...
- 4 South Ward
- 5 South - Neuro Tre...
- 6 North Ward1
- 6 South Acute Onco...
- 6 South Ward1
- 6 West Elective Ad...
- 7 North Ward
- 7 South Ward
- 7 West Ward
- 8 North Ward
- 8 South Ward
- 8 West Ward
- 9 North Ward
- 9 South ASU Ward
- 9 West Neuro Reha...
- 10 North Ward
- 10 South Ward
- 11 South Ward
- 15 North Ward
- A7 Ward and CCU
- A8 Ward
- A9 Ward
- Albert Ward
- Almroth Wright Ward
- AMU SMH
- C8 Ward
- CDU CXH
- CDU SMH
- Charles Pannett Ward
- Christopher Booth ...
- Dacie Ward
- Day Surgery SMH
- Douglas II Ward
- Douglas Ward (Med...
- Fraser Gamble Ward
- Handfield Jones Ward
- Heart Attack Centre ...
- John Humphrey Ward
- Joseph Toynbee Ward
- Kerr Ward
- Lady Skinner Ward
- Lewis Lloyd Ward
- Lillian Holland Ward
- Major Trauma Ward
- Manvers Ward
- Marjorie Warren Ward
- Neuro Planned Inve...
- Neuro Rehabilitatio...
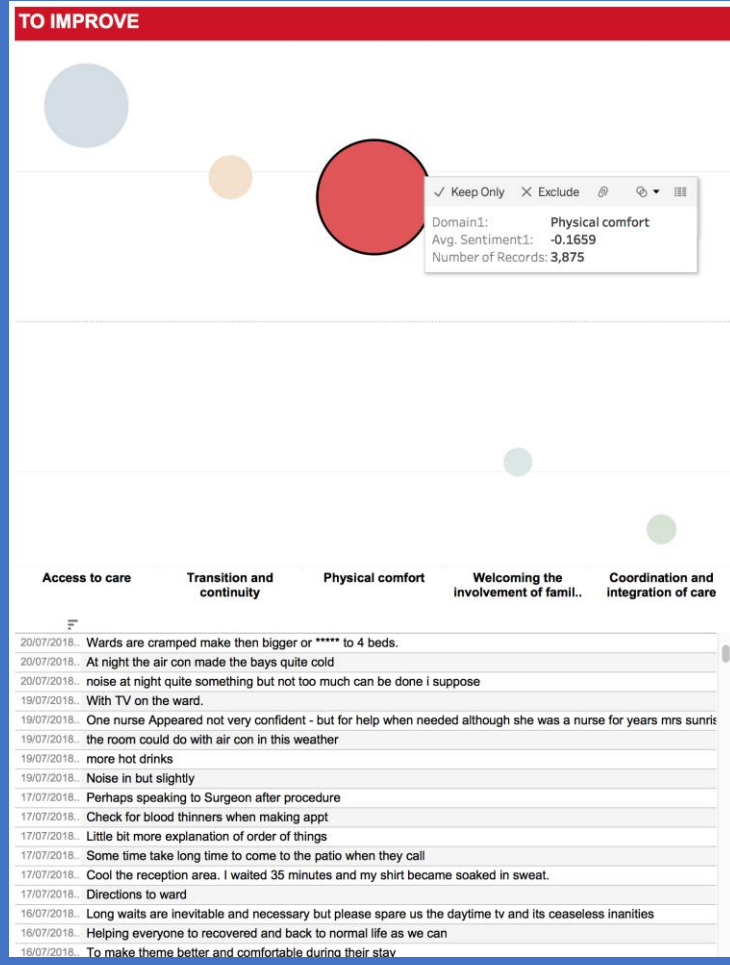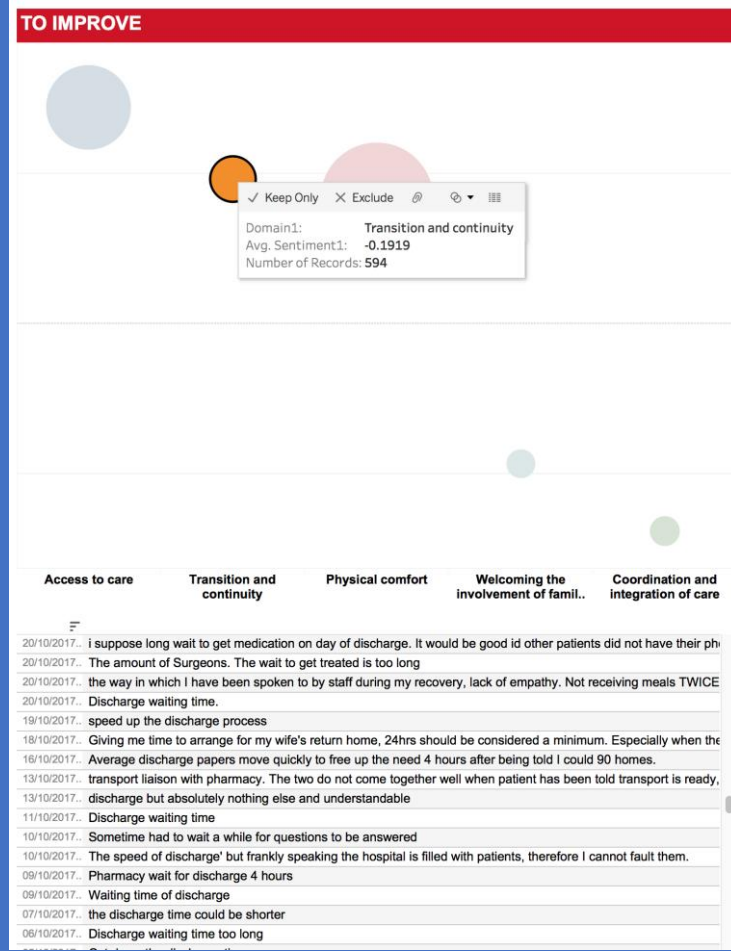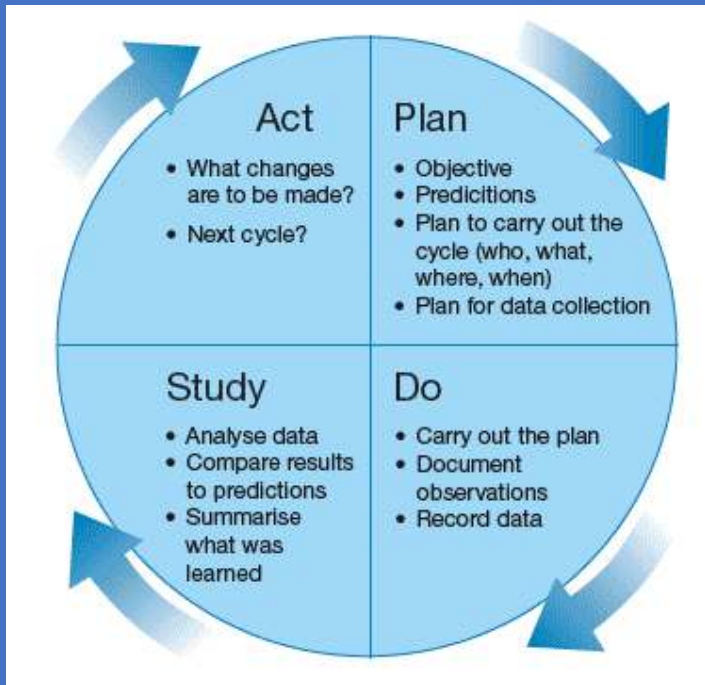
- Encouraging early dialogue in *Transition and Continuity* in Inpatients

- Facilitating better *Access to Care* in Accident and Emergency

- Improving *Physical Comfort* in Outpatients

Early Outcomes

- Technical efficiencies through reduction in labour costs and relocating staff time supporting QI projects

- Time spent on manual processing 6,000 responses was four days compared to 15 minutes using the NLP/ML algorithm, $p<0.001$

- Weak correlation 0.45 with average sentiment and FFT score

Staff Perspectives

Applying analytics and QI in parallel