



# Resource pack for the iTOFT (individual teamwork observation and feedback tool)

For:  
Learners  
Teachers  
Program organisers  
Interprofessional facilitators

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iTOFT Consortium



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**Please note:**

The order of the contents in the guide does not reflect the importance of any of the sections and the sections do not need to be read consecutively. How the guide is used depends very much on the reader and prior understanding of interprofessional education and practice, teamwork and feedback.

## Section 1: Purpose and definitions

The iTOFT (individual teamwork observation and feedback tool) has been developed in response to the need for graduating health professional learners to be able to practise collaboratively and interprofessionally, and to deliver team based health care. The purpose of the iTOFT is to facilitate observation and engagement of learners in feedback and review during and following teamwork and team-based activities.

There are two versions: basic and advanced. Both incorporate a set of items derived from the literature on teamwork that are used to highlight optimal teamwork behaviours and prompt discussion after observation of a teamwork activity. Observers may be tutors, preceptors, supervisors, clinical teachers, or learner/learner peers. As the tool requires observation by someone not involved in the teamwork activity, it is not suitable for use by patients, clients or families who are interacting with the team. Feedback from patients, clients and families should be obtained in other ways, for example through multi-source feedback, satisfaction surveys or patient designed methods.

Teamwork is a required graduate attribute as defined by Australian higher education institutions. The accreditation bodies of increasing numbers of the health professions globally are including teamwork and interprofessional collaborative practice as core standards. However, educators and clinical teachers are continually challenged by the need to observe and assess teamwork, and to give constructive feedback to enhance learning, while learners may be asked to provide evidence that they are capable of working in teams.

Health care teams and wider collaborations may consist of members of several different disciplines and health professions. The iTOFT provides a structure for the observation and feedback (formative assessment, assessment for learning) of individuals working and learning within interprofessional teams during team-based activities focussing on patient/client care delivery. Such activities could include: a clinically activity such as an interprofessional patient

management team meeting or joint interviewing of a patient/client etc. (with the patient/client's permission); a simulation activity; interviewing a patient or family; providing care as a team.

### Box 1.1: Definitions of 'interprofessional'

Common themes which relate to the concept 'interprofessional' are: interaction, joint working, enhancing care delivery and, more than two professions involved.

*Interprofessional education (IPE): Occasions when two or more professions learn from, with and about each other to improve collaboration and the quality of care (CAIPE, 2002).*

*Interprofessional learning (IPL): Learning arising from interaction between members (or students) of two or more professions. This may be a product of interprofessional education or happen spontaneously in the workplace or in education settings (Freeth et al., 2005).*

*Interprofessional collaboration is the process of developing and maintaining effective interprofessional working relationships with learners, practitioners, patients/clients/ families and communities to enable optimal health outcomes (CIHC, 2010).*

In health care, collaboration is broader than teamwork (see below) as it represents a looser interaction across many locations and care settings. The iTOFT is for the observation of teamwork rather than collaborative practice in its broadest sense, i.e. those observed have to be co-located.

### Box 1.2: Definitions of teams & teamwork

There are many definitions of teams and teamwork, and part of the preparation for health professional learners to work in teams should include discussion of definitions particularly as they apply to health care delivery. Here are just two:

*'A team is a small number of people with complementary skills, who are committed to a common purpose, performance, goals and approach, for which they are mutually accountable.'*

*High performance team members are... committed to one another' (Hammick et al, 2009, p39).*

*'Teamwork represents a set of values that encourage behaviors such as listening and constructively responding to points of view expressed by others, giving others the benefit of the doubt, providing support to those who need it, and recognizing the interests and achievements of others' (Katzenbach & Smith, 1993, p15).*

### Box 1.3: Characteristics of functioning teams

Three conditions have been defined as necessary for functioning teamwork (Dawson et al, 2007):

1. Clear objectives that are known to all members
2. Team members work closely together to achieve these objectives
3. Regular meetings to review team effectiveness and discuss how it can be improved

## Section 2: Quick reference guide for observers

For more a more detailed guide see Section 6.

The observer has three tasks:

- To prepare
- To observe and record
- To contribute to feedback and debriefing

Fundamental principles related to this tool are:

- It is for the observation and feedback of an individual learner's behaviour in a team-based activity not for the observation and feedback of the team as a whole
- The tool is a support for learning in that it can help the learner reflect on and modify behaviours in a formative way. The feedback process is therefore important to enhance the observed learner's learning to improve subsequent performance. Sequential assessments over time could also inform a learner's portfolio of learning and contribute to summative assessment.
- The context in which the observation takes place needs recording, as performance is context specific and needs to take place in a variety of settings on multiple occasions over time.

health professional courses and graduate attributes include teamwork learning outcomes/competencies. Ideally, learners should be reminded of these before any teamwork tasks or learning activities to ensure they see the relevance and importance of having their teamwork behaviours assessed.

Learners should have access to the tool for comment and discussion before being observed.

Possible contexts and activities – all must involve two or more students from different professions

- Interviewing a patient/client - on a ward, in a clinic or in the community
- Carrying out a patient/client assessment
- Providing care to a patient/client
- Developing a care plan for a patient/client (this also includes activities such as the 'Health Care Team Challenge')
- A simulation activity for any of the above
- A team presentation focusing on a patient/client based activity.

### Using the tool

The tool is designed for feedback processes relating to observable behaviour of an individual during a team-based activity/task. The team may be newly formed specifically for the activity or a team that has worked together before. The observer records each behaviour observed on the scale (or states 'not observed') and may provide written feedback for each behaviour. There is also an opportunity to give an indication of overall behavioural performance and space for general and specific comments.

Learners will have had variable amounts of teaching/learning in relation to the theory and practice of teamwork in their courses. Accreditation standards,

Table 2.1: Checklist for use of iTOFT

CHECKLIST ITEMS	Yes	No
The appropriate version of the tool is selected (basic or advanced)		
Learners are provided copies of the tool before any observed activities		
Assessors, supervisors and learners are made aware of the learning focus of the activity		
The observer may be the supervisor, facilitator or one of the learners who will observe the activity rather than taking part		
The observer chooses which learner(s) are to be observed. Peer observers may be allocated or may choose a peer to observe. Learners may volunteer to be observed.		
The observer notes on the tool who is observing, who is being observed, their health profession, their year level, the context of the activity, the date and setting.		
Experienced observers may decide and be able to observe more than one learner per activity		
The observer chooses a suitable position from which to observe the learner and the activity		
After the activity feedback should be given to the observed learner(s) – there are many ways of giving feedback and how this is done should be indicated on the tool plus the length of time taken		
Leave the iTOFT with the learner and encourage them to make their own notes		

**One suggestion:** The learners constituting the 'team' gather with their facilitator/supervisor prior to the activity and discuss the tool in terms of the meaning of the items/attributes and descriptors in relation to the theory and practice of teamwork. Learners then define their own descriptors (criteria) for each item rather than these being through a facilitation process. **This may not be possible on all occasions due to time pressures, location etc.**

## Section 3: Quick reference guide for learners

For more a more detailed guide see Section 7  
Fundamental principles related to this tool are:

- It is for the observation and feedback of your behaviour in a team-based activity not for the observation and feedback of the team as a whole
- The tool is a support for learning in that it can help you reflect on and modify behaviours in a formative way. The feedback process is therefore important to enhance your learning to improve your subsequent performance. Sequential assessments over time may be added to your portfolio of learning and contribute to summative assessment.
- The context in which the observation takes place needs recording, as performance is context specific and needs to take place in a variety of settings on multiple occasions over time.

**Possible contexts and activities – all must involve two or more students from different professions**

- Interviewing a patient/client – on a ward, in a clinic or in the community
- Carrying out a patient/client assessment
- Providing care to a patient/client
- Developing a care plan for a patient/client (this also includes activities such as the ‘Health Care Team Challenge’)
- A simulation activity for any of the above
- A team presentation focusing on a patient/client based activity.

### Using the tool

The tool is designed for feedback processes relating to your observable behaviour during a team-based activity/task. The team may be newly formed specifically for the activity or a team that has worked together before. The observer records each behaviour observed on the scale (or indicates ‘not applicable to this activity’ or ‘not observed’) and may provide written feedback for each behaviour. There is also an opportunity to give an indication of overall global impression and make general and specific comments.

You should have access to the iTOFT for comment and/or discussion before being observed.

Table 3.1 Checklist for use of iTOFT

CHECKLIST ITEMS	Yes	No
The appropriate version of the tool is selected (basic or advanced) by learner and observer		
Ensure you have a copy of the tool before you are observed and think about the areas you wish to develop and behaviours you wish to practise.		
Assessors, supervisors and learners are aware of the learning focus of the activity		
Find out what type of activity you will be undertaking		
Your observer may be the supervisor, facilitator or one of the learners who will observe the activity rather than taking part		
During the activity think about what you are doing and what you would like specific feedback about		
Before you discuss with the observer, reflect on how the team performed and how you contributed to the team’s performance		
Advise the observer what sort of comments would be most helpful to you and the specific areas you would like to discuss		
Decide what you will take away from the experience and what you may need to do in response to the feedback		
Ask for the iTOFT so you can refer to it later and put it into your portfolio of learning		

## Section 4: Background and context

### Learning outcomes and competence

To help in understanding the development of the tool, some context in relation to contemporary thinking in health professional education is required. The current trend in health professional education is competency-based education (CBE). The question asked of and by leading educators is: ‘What does competence look like and how may it be measured?’ And, specifically in relation to interprofessional teamwork: ‘How may a competent team member be recognised?’ The Interprofessional Education Collaborative (IPEC) in the United States has adopted the CBE approach with its list of *core competencies for interprofessional collaborative practice* (IPEC, 2011). The Canadian Interprofessional Health Collaborative’s (CIHC) *National Interprofessional Competency Framework* (CIHC, 2010) succinctly defines a collaborative practice-ready health worker as someone who has learned how to work in an interprofessional team and is competent to do so. There is as yet no consensus set of outcomes or competencies for IPE and collaborative practice in Australia, or in many other countries. Each health professional accreditation body has defined its own standards including outcomes. Individual universities and schools, while working with the profession specific outcomes, have either developed their own interprofessional competencies or adopted and adapted those from other sources such as the CIHC and IPEC. A comparison and examples of learning outcomes and competencies is given in Table 4.1.

Competence is seen as objective and observable (Carraccio et al., 2002). Competence is the minimal standard for qualification and certification, whereas postgraduate training and on-the-job experience is required for ‘expertise’. Interprofessional competency statements are said to ‘identify specific knowledge, skills, attitudes, values and judgments that are dynamic, developmental and evolutionary’ (Bainbridge et al., 2010, p. 8). For further discussion about IPE competencies and frameworks see Thistlethwaite et al., 2014.

Learning outcomes and competencies need to be formulated so that a decision may be made as to whether a learner has achieved them. However such achievement takes time and practice and, while competence may be attained students and health professionals are involved in lifelong learning. They need to move from competence to expertise as appropriate and refresh their skills throughout their professional careers. Therefore the iTOFT is not a one-off assessment of a learner’s competence as related to teamwork but should be used longitudinally to observe teamworking skills and enhance them through constructive feedback and monitoring development.

### Opportunities for observation of and feedback about teamwork through learning activities

The iTOFT has been developed to facilitate the observation of an individual’s teamwork behaviours and a feedback dialogue following that observation.

For observation and feedback to be acceptable and educational, higher education institutions (HEIs) should give learners learner appropriate and timely opportunities to learn about teamwork, to observe teamwork (generic and clinically focussed) and to undertake team-based tasks, as well as to engage with feedback processes prior to their clinical rotations. While early exposure to teamwork may be classroom and/or group based (e.g problem-based learning, projects), simulations and clinical placements are required for authentic and experiential learning. Clinical placements are examples of broader work-integrated learning (WIL), which facilitates the integration of theory and practice (Orrell, 2006). To maximize learning about teamwork in clinical environments, learners require some understanding

Table 4.1 Some examples of learning outcomes and/or competencies for interprofessional practice (Thistlethwaite, in press 2015)

Organisation & reference	Domains	Examples	Comments
Interprofessional Education Collaborative (2011): USA	<ol style="list-style-type: none"> <li>1. Values/ethics</li> <li>2. Roles &amp; responsibilities</li> <li>3. Interprofessional communication</li> <li>4. Teamwork</li> </ol>	<ol style="list-style-type: none"> <li>1. Work in cooperation with those who receive care, those who provide care, and others who contribute to or support the delivery of prevention and health services.</li> <li>2. Communicate one’s roles and responsibilities clearly to patients, families, and other professionals</li> <li>3. Listen actively, and encourage ideas and opinions of other team members</li> <li>4. Perform effectively on teams and in different team roles in a variety of settings</li> </ol>	The competencies are very broad in all domains and not amenable to simple assessment methods but would require observation over time. The document states that the competencies should be both formatively and summatively assessed but does not suggest methods of assessment: ‘The need for assessment instruments to evaluate interprofessional competencies represents a “next step” in the development of competency-based interprofessional education for all stages of interprofessional learning. This work is in early stages of development’ (IPEC, 2011, p. 35).
Canadian Interprofessional Health Collaborative (2010)	<ol style="list-style-type: none"> <li>1. Interprofessional communication</li> <li>2. Patient/client/family / community-centred care</li> <li>3. Role clarification</li> <li>4. Team functioning</li> <li>5. Collaborative leadership</li> <li>6. Interprofessional conflict resolution</li> </ol>	<ol style="list-style-type: none"> <li>1. Communicate to ensure common understanding of care decisions</li> <li>2. Support the participation of patients/clients, their families, and/or community representatives as integral partners alongside healthcare personnel</li> </ol>	Within the document, there is a discussion of the concepts of competence and competency: ‘Competencies do not measure the level of competence. They provide the foundation upon which assessment of ability can be built, but they do not describe the levels at which individuals are expected to perform’ (CIHC, 2010, p. 31). No specific assessment methods suggested.
CanMeds – the Royal College of Physicians and Surgeons of Canada – 2015 Framework draft online (Frank & Snell, 2014)	Six roles of which collaborator is one Working within the health care team and interprofessional health care are core concepts	Actively participate, as an individual and as a member of a team, in the continuous improvement of health care quality and patient safety (medical expert role). Work effectively with other physicians and other health care professionals	While these competencies are specifically for the medical profession, the collaborator role is being used to guide interprofessional outcomes by other organisations. There is a companion to the 2005 framework: An introductory guide to assessment methods (Bandiera et al., 2006).

**Note:** institutions using this resource pack may wish to include their own learning outcomes or competencies as defined in their curricula.

of the theory behind teamwork on which to build their practical learning prior to clinical exposure, and subsequent orientation to the clinical environment and the people working within it. The items of the iTOFT may be used to facilitate this learning and discussion about teamwork, for example: Why are such behaviours important? What does this behaviour look like? Ideally part of this learning should be interprofessional though most pre-clinical education is still largely uni-professional.

### Challenges of observation and feedback in relation to teamwork

Passive observation of healthcare teams in action is helpful for learner learning but it is not sufficient for skill development of teamwork and interprofessional interactions. Learners must have the opportunity to become members of teams and become aware of the complex tasks involved in service delivery in order for profound learning to take place (Orrell, 2006). Situated and experiential learning is further enhanced through continuity of location and supervision, i.e. learners having longitudinal clinical attachments over several weeks in the same place rather than moving location frequently (Thistlethwaite et al., 2013).

Observation of individual learners in teams by appropriate observers is best carried out once a team has formed and team members have been working together for sometime. However this may not be possible for all learners and for all placements. The history and context of the team in which an observed learner is working need to be taken into account.

Students rarely work in defined teams for any length of time and observation of their teamwork competencies and performance is often impractical. While teams may be specifically created for a learning activity or assessment, such as in a simulation or OSCE (objective structured clinical examination), this is not authentic for all team-based activities as teams take time to form and thus to perform optimally. The team-OSCE (or T-OSCE) is an example of one innovation to overcome some of these issues but still raises questions about the validity of assessing teamwork undertaken by a newly formed team (Symonds et al., 2013). We know that a 'team' of learners formed

specifically to be assessed for their collaborative skills is unlikely to function well (Oakley et al., 2004). However health care professionals do need to collaborate with others they may not work with regularly in acute situations such as cardiac arrests. Such activities are suitable for observation and feedback but do not allow learners to demonstrate more certain teamwork behaviours.

### Work-based assessment (WBA) in health care

The iTOFT is a work-based observation tool and has similar advantages and disadvantages as other work-based assessment, such as the mini-CEX and multisource feedback (Norcini, 2007), in relation to reliability and feasibility. Here, reliability in relation to assessment refers to the reproducibility of an assessment score, i.e. the score should be consistent when the same person takes the same assessment on two or more occasions or the scores should be the same if the person is observed and graded by two observers independently at the same time. Obviously if a learner is observed over time with the same instrument being used to give feedback, we would hope that the learner demonstrates improved skills. In clinical settings having more than one observer for a particular task is rarely feasible. Therefore the iTOFT is not intended for use as a one-off summative assessment but rather for formative feedback on multiple occasions.

There is growing interest in WBA not only for its feedback potential but also because of growing interest in the assessment of performance and how learners perform in authentic clinical settings. Research has long shown that what is demonstrated in controlled assessment environments (such as the OSCE) is not representative of actual daily work-based performance (Rethans et al., 1991). WBA tools have therefore been developed to improve validity and the authenticity of judgments of competence. The quest for reliability, and its attendant objectivity, in particular has resulted in the attempt to break down complex and context-specific clinical tasks into discrete elements, the mini-CEX (Norcini et al., 2003) being one example. Criticism of this approach is that it is 'at

least in part, responsible for what might be described variously as "reductionist", "deconstructive", "tick-box", "mechanistic" or "instrumentalist" approaches to assessment' and 'the lack of appreciation of assessment as the learning tool for the learner' (Amin, 2012, p.5). There is also always an element of personal opinion even with the most detailed grade descriptors (Kogan et al, 2009), which is one reason for the frequent addition of a 'global rating' independent of the accrued grades on a checklist – a potentially reliable method of assessment if delivered by an expert in a controlled environment such as an OSCE (Regehr et al., 1998).

Self and peer assessment are now being used as a means of assessing group work in university settings in part to enhance the development of observation and feedback skills in learners but also because of the frequent difficulties in finding clinicians and educators to observe learners in the workplace (though this does vary across the professions). Questions still remain about the long term effects and transferability of peer assessment, and the differences between assessing a peer and being assessed by a peer (van Zundert et al., 2010). There are a number of instruments in use for peer assessment: at undergraduate (Speyer et al, 2011) and professional levels (DLA Philips Fox, 2009). One example for pre-qualification is the web-based SPARK (Freeman & McKenzie, 2002). Learners working in teams assess their own and each other's performance against outcomes defined for the activity. Self-assessment can be compared to the peer assessment and all judgments are de-identified.

### Other teamwork observation, assessment and feedback instruments

There are many tools for the assessment and feedback of team performance, including healthcare teams. In 2013, two major reviews of teamwork instruments used in health care settings were published. The first by the Canadian Interprofessional Health Collaboration (CIHC, 2012) provides an overview of instruments (quantitative tools) that may be used to evaluate the effectiveness of IPE by measuring outcomes of IPE in relation to learning and collaborative practice. The review includes 128 tools from 136 articles. They are

classified following the 4-level Kirkpatrick outcomes evaluation framework (Kirkpatrick & Kirkpatrick, 2006) as modified for IPE by the Joint Evaluation Team (JET) (Barr et al., 2000): attitudes (64 tools); knowledge, skills and abilities (20); behaviour (34); organisational level (6); patient satisfaction (8); and provider satisfaction (14). Excluding the tools focusing on attitudinal change, many of the others may be used to assess how a team is performing and changing over time, but none are for observation of individual team members specifically.

The second review, by the Harvard Business School (Valentine et al., 2012), is aimed more specifically at finding and evaluating instruments used to assess dimensions of teamwork. It focuses on the psychometric properties of the teamwork instruments as well as providing a review of the components of teamwork. The Harvard review found 36 tools that measure teamwork, with the most common dimensions included being communication, coordination and respect. Again, none are specifically for observation and feedback in relation to individual learners within teams. While the individuals within a team are observed, judgment is not of an individual's competencies but how the team performs as a whole.

The closest measure to the iTOFT is the ICAR – the interprofessional collaborator assessment rubric (Curran et al., 2011). However the 31 items of this measure limit its feasibility in pre-qualification situations and certain of the items would be difficult to observe in a team-based activity, for example: recognition of the relationship between team functioning and quality of care; recognition of strategies that will improve team functioning; recognition of oneself as part of the team.

## Section 5: Development of the iTOFT and its role in IPE

The iTOFT's strength is its focus on observation and feedback rather than summative one-off assessment. During development, the tool was first known as the iSTAT (individual learner teamwork assessment tool), but for all the reasons discussed in this resource pack, it was renamed the iTOFT to highlight its purpose for interprofessional learning and the importance of observation and feedback.

The iTOFT was developed through a Delphi process and further refined through field testing (pilot testing) and factor analysis. We used the findings from the two reviews of teamwork instruments (CIHC & HBS) and updated them to include new tools from 2010 to 2012. Three people examined the identified tools and extracted items that related to **observable behaviours of individuals within teams**. This resulted in a list of 481 items. Following analysis and synthesis the list was reduced to 99 items and grouped in dimensions: communication, leadership, negotiation and conflict resolution, patient/client centredness, roles and responsibilities, situational awareness/monitoring, task orientation, and team process. The project management team and reference group, whose members were from diverse professions (see section 11), further reduced the items to 50 in preparation for a Delphi consultation process with an expert panel.

Ninety-one national and international interprofessional education and practice experts were invited to participate in the Delphi consultation. Forty-three gave consent to participate and 39 subsequently gave extensive feedback via the Survey Monkey™ online survey.

After analysis and ranking of the round 1 responses, the number of items was reduced to 25. Round 2 of the Delphi asked participants to indicate if these items: 'absolutely must be included'; 'were 'not as vital'; or 'not necessary'. The responses were ranked and 18 items were grouped in three dimensions: communication, coordination and collaboration,

and included in the iSTAT. The scale to rank each behavioural item was a four-point scale: '*consistently*', '*sometimes*', '*rarely*' and '*not applicable in this setting*'.

### Field-testing

The field (pilot) testing used the iSTAT and took place at the following locations:

- The University of Queensland Greenslopes Clinical School (1 site)
- UQ Healthcare a GP superclinic (owned by University of Queensland) – Ipswich Clinic (1 site)
- Curtin University, Western Australia – Juniper Annesley Aged Care Residential Home; and the primary schools – Challis, Neerigen Brook and Brookman (4 sites)
- The University of British Columbia, Vancouver, Canada (1 site)
- The University of Derby (1 site)

### Data analysis

Data for the validation of the Individual Student Teamwork Assessment Tool (iSTAT) were collected over a nineteen-month period from November 2012 to June 2014 at the above five institutions over nine pilot sites. In total there were 132 episodes of observation and feedback resulting in completed iSTATs. As well as the iSTATs themselves, we collected demographic data, information about preparation time and completion time, and feedback from observers and observed about the tool. Group interviews with staff and students at the University of Central Queensland were also undertaken. The quantitative and qualitative data were analysed and this analysis together with

discussions by the project and references groups, informed the revision of the iSTAT and the formation of the iTOFT. A recurrent theme in the feedback was that the iSTAT was too long, with too many items. There were also suggestions for additional items, however these were frequently related to team climate and context rather than being observable behaviours.

### The iTOFT

The process of developing the tool through the literature review, Delphi rounds, field testing, statistical analysis, feedback and further refinement has resulted in two forms of the iTOFT:

- The **BASIC version** for junior students with little or no previous experience of undertaking interprofessional team activities. This version has 11 observable behaviours under two headings: 'shared decision making' (7 items) and 'working in a team' (4 items) (appendix 1).
- The **ADVANCED version** for senior students and junior health professionals with experience of interprofessional team activities. This version has 10 observable behaviours under four headings: 'shared decision making' (3 items), 'working in a team' (3 items), 'leadership' (2 items) and 'patient safety' (2 items) (appendix 2).

Both versions have a similar observation scale: not applicable to this activity (i.e. this behaviour would not be expected for the team activity, team composition or context being observed); inappropriate; appropriate; or responsive. On the back of the tool are scale and item descriptors. On the front is space for written feedback to complement the oral feedback given at the time of the activity.

The iTOFT versions are now ready for use in observation and feedback, in conjunction with this resource pack. They require further testing in a wider number of activities and contexts.

## Section 6: Detailed observer guide

### Purpose of the iTOFT

The iTOFT provides a focus for collaborative practice improvement through the observation of individual teamwork behaviours and the subsequent feedback dialogue between observed and observer. It is designed to influence learners to improve their ability to operate effectively in teamwork and collaborative practice settings. This means that the processes of observation and feedback surrounding the activity by both the observer and the observed learner are as important as the completion of the form itself. In particular, the interaction and debrief between observer and learner following observations are critical components of the iTOFT.

The key implementation elements in the use of the tool are:

1. The observer rating form and its use in observation
2. The recording on the form of specific information designed to be helpful to the learner
3. Discussion of the observations using the completed form as a focus
4. Identification of actions resulting from the discussion and debrief.

### The role of the observer

The observer has three prime functions: to prepare; to observe and record; and to contribute to feedback.

Observers may be tutors/preceptors, practitioners, and/or learners who are not part of the team under observation. Observers who are also health professionals do not need to be from the same profession as the learner. While the basic use of the iTOFT is common across all observers, each type provides a different perspective and the direction of debriefing and discussions following observations may therefore vary.

While the iTOFT is for observation of an individual's

behaviour during the team based activity, one observer may feel confident and able to observe more than one person at a time once they are familiar with the tool. However each person being observed should be given individual feedback using the iTOFT.

### The rationale for the use of the tool

When engaged in a complex activity that involves working with others, it is useful to have an external perspective to enable the learner to become aware of features of their own behaviours that are both functional and less helpful in the situation. The combination of the tool and the observer's commentary together provide an outside view that can lead to the learner reappraising what they have done and identifying what they need to change on subsequent occasions and in future collaborations.

In the context of the observation of teamwork, a structured tool helpful for observers who may be drawn to and focus on the performance of the substantive task—the clinical activity—rather than the operation of an individual within a team. The tool deliberately draws attention to individual behaviours demonstrated to have an influence on team performance.

### Stages of use

There are three stages of activity that you, the observer, need to attend to: 1. preparation and briefing before the teamwork, 2. observation and recording during the teamwork itself, and 3. subsequent debriefing and conversation after the teamwork .

### Before the activity

#### Observer preparation

Familiarise yourself with the form and check that you understand all the descriptors of behaviour, what they mean and how you would recognise them in the context of the given activity. There will not normally be time to do this during the observation itself.

If possible, inform yourself of the prior experience of the learners involved with ideas about team behaviour, their prior learning about teamwork and group work practice in team settings. This may be done through checking the relevant curriculum documents or contacting the learners or tutors before the activity. Are you dealing with a set of learners familiar with teamwork in theory and practice and with the particular instrument? If they are unfamiliar with basic ideas about teamwork, be prepared to direct them to relevant resources.

Ensure all learners have a copy of the **iTOFT** and **Learner Guide** well in advance of the activity

#### Preparation and briefing of participants

If the learners/observed are not familiar with the instrument, provide a brief orientation to:

1. Reassure that the exercise does not involve grading, contributing to final judgments or examination scores, except perhaps as part of a portfolio for interprofessional learning. It is an opportunity to learn and identify areas for improvement. The observer is there to provide useful information not to assess them. It is a formative and not a summative process with the overall aim of improving patient care.
2. Emphasise that the tool focuses on particular behaviours associated with effective teamwork performance. They should prepare themselves by making their own assessment of the areas they want to focus on in the current activity and what kinds of input they would find most useful from an observer. Not all the behaviours included in the tool will be relevant for every teamwork activity; this will depend on the context and situation. However they are all important teamwork behaviours in relation to health care overall.

3. Mention that there will be a short discussion after the activity during which they will get a copy of the completed form and be given further feedback on key points by the observer. They should enter into this as a dialogue in which they seek information and guide the observer to areas they would find most helpful. They should make plans for what they would do the same and differently following this discussion and document them on the iTOFT.
4. Encourage them to focus on the activity at hand, what the team is doing and what they are doing as part of the team, and not you as the observer.

#### During the activity (observation and recording)

In the observation phase, position yourself so that you can see all the interactions of the team that involve the person being observed, but be as unobtrusive in doing so (e.g. do not be in the direct sight line of the person being observed). During this phase, do not intervene or provide any commentary unless there is a safety issue or risk to a patient involved and you need to do so as part of your duty of care.

Work out how you will initiate the post-activity discussion in a way that will most thoroughly engage the learner and make them feel that the observation process is worthwhile.

#### After the activity (feedback and debriefing)

- Give the person you have observed some time to make notes and reflect on the activity.
- Take aside the person you have been observing so that your discussion cannot be overheard (this may be difficult in the clinical environment, you may need to identify a suitable location beforehand). The discussion is between you and the person observed, not the whole team. In situations where the tool is used extensively, there may be occasions in which it would be appropriate for others to become involved in this discussion, but this should be established beforehand.
- Have the learner speak first. Encourage them first to reflect on their own behaviour—what were they pleased with, and what were they concerned about. Then, ask them what teamwork behaviours they would like you to focus on and what type of observations they may find most useful from you.

- Note the state of the learner (this is helped by having them speak first). Are they engaged or distracted or feeling unsure? Are they anxious? Couch your comments in terms of this observation.
- Reinforce what you agree with them about, but spend most time on areas in which their observations differ from your own. It is more important to have them make accurate judgments about their own behaviour than it is to exhibit any particular behaviour.
- Foster engagement of the learner in the feedback process. Stress throughout that you regard it as important to have them say what kind of comments they most need for their own development.
- Always focus on what specifically occurred. Give examples of all the points you want to make that are grounded in the actual interactions observed. Keep returning to what happened rather than generalise.
- The important characteristic of your interaction is dialogue and interchange, e.g. what constitutes standards of good team behaviour and how are these manifest? What alternative ways of behaving are possible in such a situation? The behaviours listed on the form are generalisations and need to be grounded in what the learner understands and can do and this can only become apparent and worked through in discussion.
- Encourage the learner to identify and record specific steps they would take if involved in a similar situation in future. Keep in mind that ultimately what counts is not what you write or say, but what they take up from this and act on. Good feedback is judged not in terms of the quality of the input made, but on the effect that it has on improved practice.
- Notwithstanding time constraints, avoid rushing the discussion. Spend as much time as is needed and provide the learner with the opportunity to have the final comment. It is the quality of the interaction that will influence change not the ratings on the form or your elaboration of them.
- Leave the form with the person and encourage them to make their own notes immediately following your discussion.
- Ask the person how worthwhile they have found the experience and discussion.

## Section 7: Detailed learner guide

### What is the iTOFT for?

The purpose of this tool is to provide you with an external perspective on what you do that contributes well to the team, and what you need to do to be more effective. It is structured around features of teamwork behaviour that have been demonstrated to have an effect on team performance.

Observers may be tutors, practitioners of various kinds, preceptors, and/or learners who are not part of the team under observation. While the basic use of the iTOFT is common across all observers, each provides a different kind of perspective and the direction of discussions following observations may therefore vary. We do not include patients as users of the iTOFT as they are really part of the team process, however they may be asked for feedback as appropriate during or after the team's interaction with them and their families.

While the tool emphasises what is effective in promoting good team functioning, keep in mind that the team only exists in order to do a particular job well, so don't lose focus on that. The challenge of teamwork is to have a dual focus on solving the problem while monitoring how you and the team are operating.

### How can it be used?

The tool is most effective when you engage with it both before and after a teamwork experience, and when you take an active role in seeking and using feedback. Don't wait for an observer to tell you. Tell them what you need so that they can give you the help you want. If you don't tell them what you most need, they are unlikely to provide it!

Getting the most out of the activity and learning from teamwork involves thinking ahead of time as well as processing it afterwards. The following are prompts for each aspect of this:

#### Before

1. Find out what you can about the type of activity and the kind of team you will be part of
2. Identify clearly (a) what the team needs to do to get the work done, and (b) what you want to get out of the activity in relation to working in a team
3. Think about comments others have made before about your operation in a team, even if this was in quite a different context. What implications might these have for what you will do now?
4. Review the tool to identify (a) areas in which you think you need to develop, and (b) particular behaviours you want to practise
5. Make a note of what thoughts or types of behaviour you should take into the new situation
6. Recognise that any particular episode of teamwork may not allow you to practise all that you wish

#### During

7. Focus on the activity and being an effective member of the team
8. Mentally note what is going on in the team as well as how you are collectively dealing with the task
9. Don't get so absorbed in your part of the team task that you don't notice what others are doing and the effects you might be having on them. Try to consciously shift perspective between the substantive task and the operation of the team (the team process) from time to time
10. Ask yourself at each stage of the activity: what is it best to do to ensure a good outcome for the team as well as the task?
11. Make a mental note of anything you want to ask the observer about

## After

12. Before you talk to anyone else, reflect on (a) how the team performed, and (b) how you contributed to the team's performance. Keep in mind that it is unlikely that overt displays of 'leadership' help the team most. Use the iTOFT items to reflect on your behaviour
13. In the light of your own provisional analysis and judgments, tell the observer what kinds of comment you would find most helpful. You may wish to confirm them or have them refuted. Think about what kinds of information would be most useful in developing your teamwork skills. What kind of behaviours do you most want the observer to focus on?
14. Be open to comments about aspects of your behaviour that you didn't think were problematic
15. Don't respond defensively: if you do you will miss important information. Seek clarification as you need it, but don't indulge in justification as this will lead you to miss important information you need (for example, 'I only did this because she did that'). If you think that the observer has missed something important about your behaviour, ask yourself what might have led them to that view. Perhaps some aspects of your behaviour lead others to misinterpret your actions.

Finally, ask yourself: what can I take away from this? The comments on the sheet are a starting point for your own identification of actions that need to be taken. Identify what you should do. For example, do you need to:

- (a) Find out more about how teams work and how members can contribute to them?
- (b) Try out some of the behaviours noted?
- (c) Practice your teamwork interventions in areas seen as problematic and locate observers who can help you with further cycles of feedback?

While you may not have an identical situation in which to practise, there are many other occasions in which you work with others in groups for you to observe your own behaviour and try new ways of acting.

## Additional uses

There will be many opportunities during which you may wish to develop teamwork skills when observers will not be available. There are three other ways to use the iTOFT to help you develop your skills:

1. Self-administered with personal reflection: the use of iTOFT to prompt individual sense-making
2. Self-administered with team debriefing: iTOFT as an aid to discussions within a work team
3. Non-synchronous use: video or audio recording of teamwork followed by viewing of the recording by an observer or other members of the team using iTOFT at another time.

### 1. Self-administered with personal reflection

Use the prompts of the iTOFT on any occasions of teamwork you wish. Fill it in for yourself and identify which behaviours you were able to demonstrate and which you need to work on further. Identify what you would need to do to bridge the gap between your current rating and where you would want to be. Draw on the resources provided elsewhere in the **Learner Guide** and choose other occasions when you may be able to practise.

### 2. Self-administered with team debriefing

When tutors or other observers are not available, it is open to the team to use iTOFT to record their own observations of each other immediately following a teamwork event. Whilst recall of observations afterwards is not as accurate as those done during the event, there is considerable benefit in team members sharing their own perceptions of each other. Even when you may doubt that others have given a valid response, it is still useful to know what their perceptions are of your contribution.

### 3. Non-synchronous use

There may be circumstances in which you can obtain permission to record a team session for the purposes of learning only. Record the event using video or audio recording and show this to a trusted observer who can complete the iTOFT form using the **Observer Guide** just as they would have done had they been present. On other occasions the viewing of such a record can be used for a team debriefing.

## Section 8: Guide for those organising teamwork development within programs

A common challenge in many programs is to find ways of incorporating practice and feedback of teamwork into courses. While it is not the role of this guide to propose a curriculum for teamwork development, it is important to identify circumstances in which this tool can be usefully utilised.

The most important thing to emphasise is that a single occasion of teamwork activity or the use of the tool on a single occasion is likely to have very little effect. This might lead to some raising of awareness of some of the behaviours needed and issues involved, but it is unlikely to improve behaviour or performance.

### Desirable prerequisites for use in a program

The following are features which will enhance the development of teamwork capacities when using the iTOFT:

- Learning outcomes associated with teamwork are part of an appropriate course unit or clinical placement
- Learners have been introduced to ideas about teamwork and interprofessional practice, have read about issues in teamwork and have ready access to resources they can consult further
- Examples of good practice in teamwork and commentaries about features to notice are available to learners to view (e.g. video clips etc.)
- Criteria for and models of good teamwork are available to learners
- Multiple occasions of teamwork have been arranged in the program with opportunities for learners to discuss their outcomes and relate these to their growing understandings and the resources they have consulted
- iTOFT is used with an observer for a minimum of two separate episodes of teamwork for each learner. Without repeated use the feedback mechanism can't effectively operate.

- Sufficient time is scheduled for both teamwork practice and the dialogues needed after each observation. This time will vary depending on the activity
- Comparisons are made of completed iTOFT forms for multiple occasions of use by the learner and supervisor as appropriate
- Learners are advised about alternative uses of iTOFT that don't involve the presence of a tutor/practitioner observer (see Learner Guide)

## Section 9: Conceptual framework for feedback

Key features of interprofessional team learning have been carefully represented in the observed behaviour items of the tool. However, one of the most important features of the use of the tool is in the observations made by those using it and the ways they are communicated to learners through the feedback process. Reflection following the observation and feedback dialogue also adds to the impact of the tool and the observation process.

How to provide formative assessment and build effective feedback into courses in higher and professional education has been subject to considerable recent research and reconceptualization and many of the taken-for-granted nostrums of formative assessment and feedback in health-related courses are being challenged. The guidelines for feedback discussed in sections B and C are based on this contemporary thinking about assessment and feedback. The emphasis of this research is on how to engage with learners in ways likely to result in discernable change and the conditions to ensure that feedback discussions are likely to be acted upon. As is discussed in the Planner Guide, multiple opportunities for practice and the use of iTOFT is needed for the effective development of teamwork within programs.

The main aspects of assessment and feedback research drawn on here are those that focus on how assessment and feedback contributes to the ongoing learning of learners and the need for feedback necessarily to have an impact on what learners do rather than merely providing information.

### Sustainable assessment and assessment futures

Learner assessment has experienced a quiet revolution in the past ten years or so, but these changes have not been so clear in everyday assessment practice. The term ‘sustainable assessment’ was used to focus on how assessment practices can equip learners

for the challenges of learning and practice they will encounter once the current episode of learning is complete. It refers to assessment ‘that meets the needs of the present and [also] prepares learners to meet their own future learning needs’ (Boud, 2000, p. 151). This notion of sustainable assessment built upon a strong foundation of formative assessment (Black and Wiliam, 1998), but took the idea of formative assessment further to refer not just to the formation of learners within the timescale of a given course, but to future professional practice for which the course was a precursor. It suggested that ‘for learners to become effective lifelong learners, they need also to be prepared to undertake assessment of the tasks they face throughout their lives’ (p. 152). Such a view is a profound shift in thinking about assessment. Assessment in this view needs ultimately to be judged in terms of its influence on a learner’s future actions.

Considerable development in assessment arose from these conceptualisations and moves were made to translate these into everyday assessment practices. While there are now many examples in the literature (eg. Fastré et al, 2013), a consolidated source of practical suggestions can be found on the Assessment Futures website (<http://www.assessmentfutures.com>). There is a very wide range of different kinds of assessment tasks represented there, all of which can be designed to contribute in some way to the building of learners’ ability to learn and assessment beyond the end of the course, as well as address the immediate needs of formative or summative assessment. Of course, not every episode of assessment or learning task leads to marking or grading or contributes to final results. However, all potentially lead to further learning and thus considerations of feedback apply to them all whether or not there is a formal communication of information from teacher to learner as they all generate information of one kind or another that learners can use.

There are four key features of assessmentfutures.com: the need for sustainable assessment, the

imperative that assessment should foster learners’ ability to make judgments, the importance of constructing learners as reflexive learners, and the goal that assessment helps form useful dispositions of learners towards their professional practice. Types of tasks are arranged around the themes of: engaging learners, authentic activities, learners designing assessments, integrative tasks, learning and judgment, modelling and practice, working with peers, and giving and receiving feedback (Boud, 2010).

### Sustainable feedback

Hounsell (2007) took up these ideas about sustainable assessment and used them to describe what he referred to as sustainable feedback. This is simply the application of these practices in a feedback context, that is, as a way of rethinking how feedback practices could equip learners to continue learning beyond the course. Subsequent reiterations by Carless (2011) highlighted the current absence of a significant role of learners in the feedback process, and Nicol (2010) similarly argued for feedback to involve the learner more in dialogue than as recipient of teachers’ monologues of assessment commentary. More recently, Boud and Molloy (2013) proposed a new understanding of feedback that develops learners’ evaluative capacity by recognizing feedback as a way of fostering active learners, and which may begin with developing learner dispositions towards seeking feedback.

### Defining feedback

Courses in higher education are more frequently criticised in learner surveys for deficiencies in assessment and feedback than any other aspect (see for example the National Student Satisfaction Survey UK and the UTS student feedback survey) and this has resulted in renewed interest in what feedback is and how it can work effectively. In particular, it has led to recognition that feedback in educational settings, just like feedback in any other systems, must be characterised not in terms of inputs that are made, but the effects that result. Boud and Molloy’s definition of feedback captures this as:

“a process whereby learners obtain information about their work in order to appreciate the similarities and differences between the appropriate standards for any given work, and the qualities of the work itself, in order to generate improved work” (Boud and Molloy, 2013b, p. 6).

Teachers or others offering feedback information can therefore only confirm that learning has resulted from feedback processes if learners act on feedback, to complete a feedback loop (Sadler, 1989).

### Different generations of feedback

When used in its original disciplines such as engineering, feedback describes what happens when information from a system is reinserted into the system to change its behaviour. Determining if feedback has occurred involves observing a change in response of the system. Commonly, when the idea of feedback is transferred to the educational context, the notion of providing information with the intention of changing the system (in this case, the learner) is retained, but the notion of seeking to observe a change in output is often missing. It is assumed that the desired change will occur or that if learners could pay sufficient attention to the input (eg. comments from a tutor), then the desired learning outcomes could be produced. Without knowledge of effects, the information we commonly call ‘feedback’ cannot adequately produce desired changes. The feedback loop is not completed, and thus feedback—in the sense understood for example by engineers—has simply not occurred. A signal has been transmitted (input from teachers), but we have no knowledge that it has been received or acted upon (through change in learners). Attending to this input is a necessary but not sufficient condition for ‘feedback’ to have an effect.

To ensure that feedback works for learning, we can start by making sure that there is some evidence that the feedback loop has been completed. This version of feedback has been termed Feedback Mark 1 (Boud and Molloy, 2013). The educational implications of this simple application of what feedback means in disciplines other than education are substantial. In order to identify an activity as feedback it would be necessary to detect that information provided to

learners was firstly apprehended and that it resulted in some kind of change, i.e. it has educational impact. For this to be identifiable, it would be necessary to have knowledge of subsequent work of the learner in which a change could be observed. Feedback would therefore be positioned not as an act that occurs at a single point in time—at the point of transmission of information from teacher to learner—but one that needed to be completed over time—when knowledge of subsequent work is communicated from learner to teacher.

Unfortunately, such a practice of following learners' work over time cannot always be achieved. And, even if it could be achieved, it would place too great a burden on teachers or tutors to make such inputs whenever they were needed. Indeed, in many clinical settings it is difficult to ensure that learners are observed let alone receive any useful information about their practice. Treating learners as if they were a mechanical or electronic system is also not a reasonable assumption to make about learners who have volition.

Any reframing of feedback must therefore take into account the agency of learners and how they respond to the input of others. Recognising this active role of learners implies that for them to act effectively on the input of others:

- They must value such input,
- There must be some kind of dialogue between giver and receiver (Nicol 2010) to appreciate criteria and standards to apply,
- That trust between giver and receiver be built for the learner to invest the time and effort required to act on information given (Carless 2009)
- That learners develop their capacity to calibrate their own judgements and appreciate the qualities of their work and how it might otherwise be improved (see following section).

This then leads to the next generation of feedback thinking: Feedback Mark 2 (Boud and Molloy, 2013a). This involves a central role for learners, not merely as recipients of information, but as active agents seeking and using information from a variety of sources. This requires two-way interactions between giver and receiver, and the use of peers, non-human sources and practitioners as well as teachers. Other parties are used not simply as information sources, but as means

whereby learners can calibrate their own judgement, and create for themselves the expertise needed for further study and performance (Boud, Lawson and Thompson, 2013).

This view of feedback sees feedback as a curriculum element that responds to and drives learning. It is not a separate process, but a pedagogical practice that is an integral part of all learning processes. Feedback becomes a design feature of courses, located to enable sufficient practice to be had, for feedback loops to be completed and effectiveness in self-judgement developed as a learning outcome. It is also a strategy that can be deployed by learners as and when it is needed for their own learning paths. This dual nature of feedback acknowledges that while productive learning environments can be constructed for courses, in order for them to be fully utilised, there also needs to be a disposition on the part of learners to utilise what is available to them and the ability of learners to realise the potential of the environment.

### Learners developing judgment

Unless learners can make good judgments about the quality of their own work beyond the end of the course in which they are enrolled, the assessment within that program cannot be regarded as sustainable.

Sadler has proposed that self-evaluative skills need to be developed 'by providing direct authentic evaluative experience for learners' (Sadler, 1989, p.119), that is, involving learners in making specific judgments about particular work they have undertaken. However, as in the development of any form of expertise, skills have to be developed over time. Even multiple examples of self-assessment activity deployed from time to time are likely to have relatively little influence. As learners will encounter new domains of knowledge that require new behaviours, these changes are disruptive for learners. It is unlikely that their judgment will improve continuously as novel situations are encountered.

The role of feedback in the development of judgment is therefore particularly important (Boud & Molloy, 2013a). Learners need to have ways of knowing whether their judgments are realistic and be able to assess these in the light of evidence. Through

such calibration against others' judgments, learners can identify the areas in which they need to improve and see shifts in their ability over time. This evidence is commonly available from teachers or tutors who can provide useful information about whether work meets required standards and, if it does not, how these standards can be met. However, Sadler suggests that learners should develop means of evaluating the quality of their own work through moving beyond 'teacher-supplied feedback to learner self-monitoring'. He proposes that the situations in which they learn need to 'make explicit provision for learners themselves to acquire evaluative expertise' (Sadler, 1989, p.143). Feedback information from others may be necessary; it is not enough on its own for learners to develop evaluative expertise.

Indeed, evaluative expertise alone is not sufficient for improvement, as Ramprasad (1983) has argued. Drawing on Ramprasad, Sadler (1989) identified three requirements for effective feedback, that is feedback that influences learning: (1) a knowledge of appropriate standards, (2) a comparison of one's own work with these standards, and (3) the taking of action to close the gap between the two (Sadler, 1989, p.138). Standards not only need to be explicit—perhaps derived from statements of competencies included in regulatory requirements—but learners need to appreciate how these standards are manifest in work of the kind in which they are engaged. Relating these standards to one's own work needs an ability to see in one's own work behavioural indications of achievement. Finally, closing the gap requires opportunities for subsequent practice to show this knowledge translated into action.

A particular feature of the design of programs to aid this process is for learner judgments to be matched to those of experienced judges of the kind of work being considered. Noticing the qualities of work in one's own practice is difficult and the availability of the judgments of others with respect to the very criteria needed to judge one's own work is important. In such situations discrepancies between learners' judgment and that of the expert observer are important pointers for raising learners' awareness about what they need to do to subsequently improve their work.

### Characteristics of good feedback information

While the importance of outputs from feedback processes, rather than inputs to them, has been strengthened in recent scholarship, this clearly does not mean that inputs are inconsequential. If these inputs are inappropriately constructed, then their potential value cannot be realised

Hattie and Timperley (2007) have shown that the extent to which feedback information serves to reduce the gap between current and desired performance is partly dependent on the level at which the feedback operates. Learners respond in different ways to different types of information so the information needs to be tailored to what learners need to do with it. Some information and some ways in which it is framed are demotivating and act to inhibit learning (Shute, 2008).

Hattie's model proposes that feedback can be directed at four different levels of operation of the learner and that feedback may well be ineffective if directed at an inappropriate level. The responses that learners make are dependent in part on the focus and type of feedback they get. If the focus is inappropriate to the needs of the learner, the information can be ineffective because the learner is unable or unwilling to transform the information into action where it is needed. A simple but regrettable example of this is the frequent use of the humiliation of learners in the health professions (see Lempp & Seale, 2004; Seabrook, 2004). The discussion of the four levels below is adapted from Jolly and Boud (2013).

#### Task focussed (FT).

Task focused information emphasizes how well a task has been done, identifying when statements are incorrect or contestable, and suggesting that more or different information is necessary to complete the task or do it better. It is most powerful when learner problems are about faulty interpretations, not lack of information. Comments at the task level do not necessarily generalize to other tasks.

## Process focussed (FP)

Process focused comments are addressed to the processes used when completing tasks or to those used to make connections across tasks to broaden or expand tasks into new areas. In comments of this kind, learners are assisted to create meaning and relate to the connections between concepts, to how learners' cognitive processes are being developed, and to their application to other more difficult or untried tasks. One mode of process focused feedback tackles learners' strategies for error detection, which can range from finding a different way to express an issue to self-diagnosis by the learners of their misunderstanding. Comments at the process level can be more effective than at the task level for enhancing deeper learning. For example, asking learners to explain to themselves or a peer, will sometimes trigger a realization that they have omitted something important.

## Self-regulation focussed (FR)

Self-regulation focused comments have the greatest potential to influence what learners do. Feedback is a two way process and one that, under the right circumstances, should originate within the learner. Self-regulation includes the way learners 'monitor, direct, and regulate actions toward the learning goal. It implies autonomy, self-control, self-direction, and self-discipline' (Hattie and Timperley, 2007, p 93); 'less effective learners have minimal self-regulation strategies, and they depend much more on external factors (such as the teacher or the task) for feedback' (p 94).

Self-regulation focussed comments have at least six elements that mediate the effectiveness of feedback. They are:

### I. *Capacity to create 'internal' feedback.*

This includes feedback directed at encouraging the learner to monitor their engagement with work and how they are going. It focuses on the type of outcomes required and the attributes of effective cognitive strategies' required to meet them. This is the first step in self-regulation.

### II. *Ability to self-assess.*

The major powerhouse of self regulation in the model involves two sub elements. First, cognitive activities where learners constantly review and evaluate their skills, their need for more knowledge about a topic, the way they are thinking about it, and how they will identify missed opportunities. Second, mental strategies to plan tasks, correct errors, and generally fix things up in their work. Put together these two sub-components deliver strengths in evaluating understanding, both in relation to curricular goals and in judging performance against that of peers.

### III. *Willingness to invest effort into seeking and dealing with feedback information.*

Learners can seem to have a cost-benefit approach to using feedback appropriately. If the balance of the effort against other factors such as potential loss of face, or the difficulty of interpreting feedback, is not seen by the learner to result in a positive outcome, feedback will not be sought. The easier feedback is to assimilate, and the less it 'costs' the learner to deal with, the more likely the feedback is to produce change.

### IV. *Degree of confidence or certainty in the correctness of the response.*

Feedback has its most potent effect when a learner expects a task to have been done correctly and it turns out not to be so. If the learner has low confidence in what they have done, and are given negative feedback about it, this feedback can be ignored. When this happens, additional education and/or direct information is more effective than more feedback on the same topic – a type of 'clear the decks and let's start again approach'.

### V. *Attributions about success or failure.*

Learners' views about what caused the success or failure will have a major impact on the effectiveness of the feedback. One determinant of the capacity of learners to inappropriately attribute their performance to external rather than internal factors is the degree of clarity of the feedback. When it is unclear, and does not specify the basis on which learners have met with success, or lack of it, feedback can aggravate poor outcomes and increase uncertainty about how to approach the

task again. Conversely, feedback that identifies the learners' own efforts as the contributor to performance can increase commitment and level of outcomes.

### VI. *Level of proficiency at seeking help.*

In general, getting hints about work rather than answers to the tasks posed is more effective in focusing on the self-regulation dimension. Getting 'the answer' that can be reproduced to save time is information, at best, only at the task or process level.

## Person (self) focussed. (FS)

The key difference between self-regulation and person-focused feedback is that self-regulation feedback includes information about the learner's capacity to apply a metacognitive view of their task-related efforts, skills and intellectual deployment. Person-focused feedback is directed at personal attributes, such as understanding, intelligence and ability. It usually contains little or no task-related information. Examples of person-focused statements are 'You did a great job'; 'You are so clever'; 'You have a very interesting approach to things'. For this reason, person focused feedback is usually ineffective: it doesn't include information on matters that learners can see that they can change.

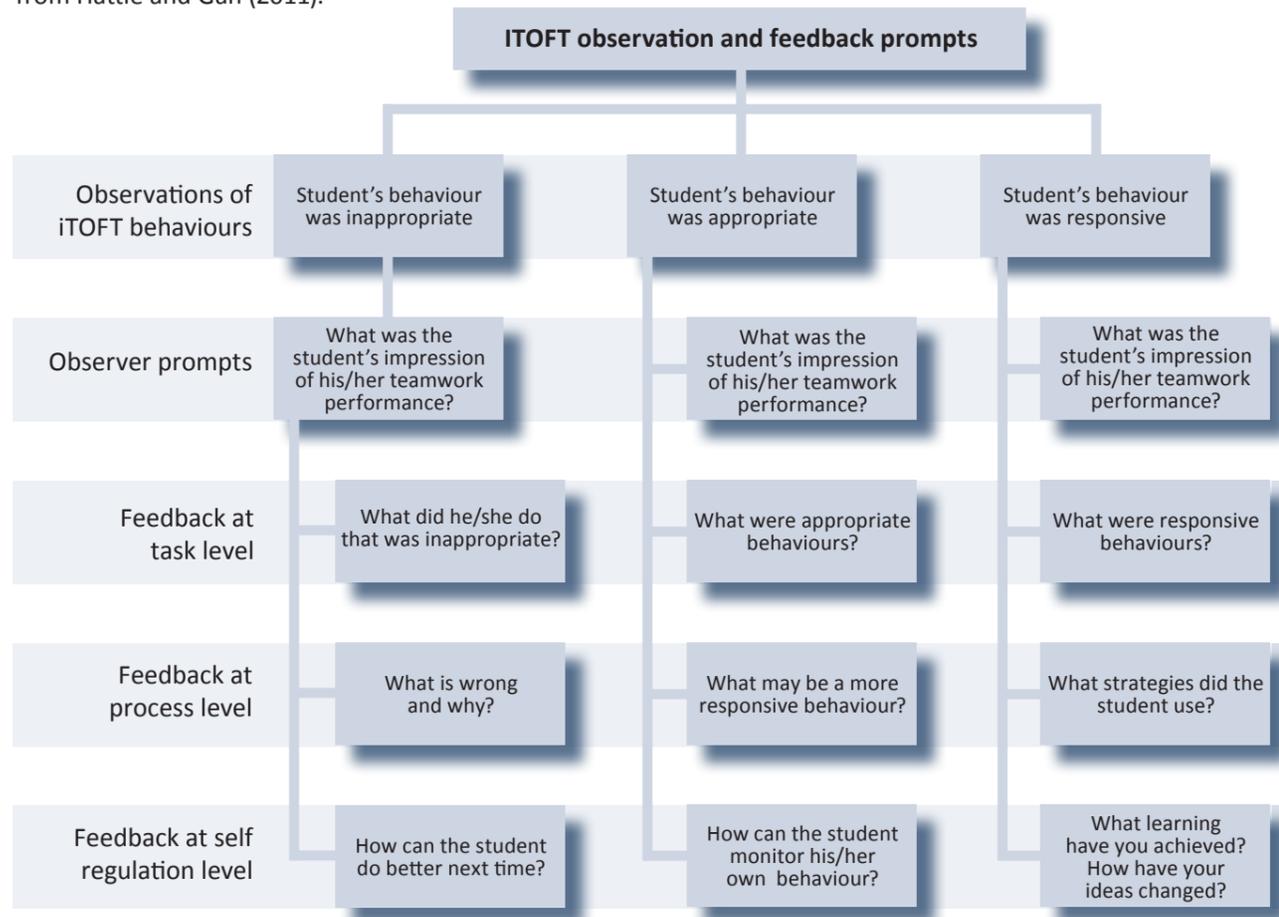
Studies have shown that such praise on its own, while highly valued by many learners, does not translate into more engagement with, or commitment to, learning goals, does not promote self-efficacy, nor lead to greater understanding about learning tasks. The effects of person-focused feedback are usually too dispersed in relation to usable content (task, process or self regulation information) to be effective.

However, praise directed to the person sometimes can be a vehicle for information on process issues. This would involve comments on effort, self-monitoring, engagement, or on cognitive operations relating to the task and its performance. So, although person focused feedback is not generally recommended, when also accompanied by rationales and highlighting of processes (process or self-regulatory focus), it can be a useful route to more effective modes. Both self-regulation and person focused feedback are

directed at the personal attributes of the learner. They stem from teachers' perceptions and tend to be normatively judgmental. Nevertheless, person focused feedback may also be used to build trust between the learner and a supervising professional. Written person-focused statements (notes and emails) may also carry more weight than 'off the cuff' comments. They can also set better-defined challenges or limits to the learners' activities. For example 'I am impressed by your capacity to develop a management plan for this type of patient, but just check in with me briefly before prescribing this drug again: we need to ensure you have a complete grasp of the side effects and contra indications'. For undergraduate learners: 'When working on the team activity you listened well and encouraged other team members to contribute. I feel you had a lot more to contribute yourself to the discussion in relation to your own professional knowledge particularly when the team was considering how best to encourage the patient to increase her activity level'.

The levels of feedback in relation to the ITOFT are demonstrated in the diagrammatic model (fig. 9.1) adapted from Hattie and Gan's graphic organiser on feedback levels and question prompts (2011).

Figure 9.1. iTOFT feedback observation and feedback prompts, adapted from Hattie and Gan (2011).



## Summary

In summary, what emerges from recent research and scholarship on feedback are the following points:

- Learning involves bridging the gap between desired and actual performance
- Feedback must be judged by its effects on learning and performance
- It is necessary to look beyond the immediate task: acts of assessment must leave learners better equipped to learn further
- Learners need to develop a view about what constitutes quality work if they are to be able to demonstrate it for themselves
- Feedback is not a unilateral act by tutors or trainers, but a set of interlinked activities
- Learners need always to be positioned by tutors and other staff as pro-active learners, promoting feedback-seeking behaviour.
- Knowledge of the learner's desires and expectations is needed for effective input
- Effective learning requires dialogue
- The overriding purpose of feedback practices is the refinement of learner's capacity use of information to judge themselves in similar situations
- Inputs from tutors are important as they can open up or close down learning possibilities.

## Section 10: Resource pack references

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