Competency Analytics in the Workplace through Continuous Peer Feedback

Eddie Walsh, Mirjam Neelen, Evangelos Kapros
Learnovate Centre, Trinity College Dublin
Dublin, Ireland
{*eddie.walsh, mirjam.neelen, evangelos.kapros*}@*learnovatecentre.org*

Abstract—**The workplace is changing to meet modern business needs by becoming a more agile and responsive environment. Employees need to develop strong transversal competencies such as communication, leadership, and problem solving to support their performance and professional development within these environments. Many existing processes to help employees develop their competencies and get insights into their performance levels are ineffective and occur infrequently. Employees need easier and more regular access to detailed information about their transversal competencies. This would allow them to better understand their own strengths and weaknesses and focus on their performance and development objectives on an ongoing basis. This paper presents a novel approach to competency analytics based on event-driven, continuous peer feedback. This approach is being trialled with existing teams in multiple companies to explore the effectiveness of continuous peer feedback and competency analytics in the workplace.**

Keywords-**transversal competencies; competency analytics; continuous peer feedback; performance assessment; professional development**

I. INTRODUCTION

Developing a workforce with strong transversal competencies is critical for modern organisations. Transversal competencies have been defined as the competencies "individuals have which are relevant to jobs and occupations other than the ones they currently have or have recently had. These skills may also have been acquired through non-work or leisure activities or through participation in education or training" [1].

The need for organisations to become more agile requires employees to apply their transversal competencies more intentionally and effectively. These competencies are important for employees to move across fast-paced and continuously evolving work environments [2]. However, ineffective talent and performance management processes combined with the fact that transversal competencies are difficult to assess often poses challenges. Assessing transversal competencies more accurately is essential to allow employees to become more aware of these competencies and develop them over time [3].

This research explores the effectiveness of continuous peer feedback as a mechanism for transversal competency assessment and professional development. Aggregated feedback from a variety of people can provide more accurate data that captures day-to-day employee performance on critical competencies, such as transversal competencies [4].

The effectiveness of continuous peer feedback is explored through the development of a mobile feedback app and a team analytics platform for managers. These technologies offer a flexible peer feedback process for continuous formative peer assessment of transversal competencies based on regular on-the-job performance. This approach also supports informal learning and the essential nature of learning from peers in modern agile workplaces [5].

The peer feedback process developed in this research fits into current employee workflows and supports more evidential feedback methods to reduce subjectivity in the generated data. This is done through a competency capture process where feedback about formal and informal events, such as meetings, presentations and discussions can be associated with behaviours, which are then linked to high-level competencies. The app uses behavioural anchors instead of more subjective numeric ratings, promoting more objective peer assessment. Using the behavioural anchors, the Feedback app assesses the behavioural range of the competency. In particular, this approach supports assessment of transversal competencies because they typically have less clearly identifiable knowledge and skills and more prominent behavioural components [6].

II. COMPETENCY FRAMEWORK

To support peer feedback and competency analytics in a more flexible and continuous way, there is a need to develop new types of competency frameworks. These new frameworks need to be user-friendly and accessible to employees at all times.

In this research, a new approach was developed based on the Behaviourally Anchored Rating Scale (BARS) methodology [7]. To employ the BARS methodology, an existing competency framework from University of California, Berkeley was selected as the basis for this work [8]. The Berkeley competency framework is a good example of the BARS methodology and provided five commonly occurring transversal competencies; communication, collaboration, problem solving, leadership and service focus. This framework was then adapted to provide more succinct and user-friendly behavioural statements that were more suitable for a lightweight, continuous mobile feedback approach.

An example of the competency framework is shown in Figure 1. This demonstrates how the high-level transver-
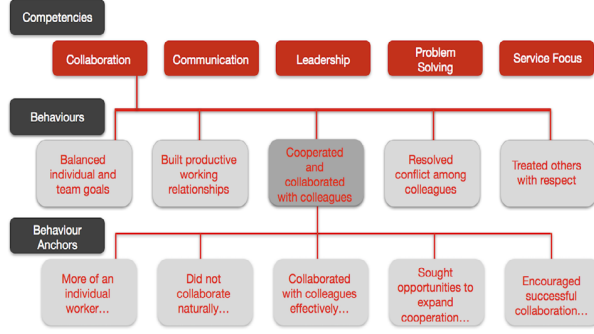
Figure 1: Competency framework

sal competencies contain subsets of descriptive behaviours. Each of the behaviours is made up of a set of weighted behavioural anchor statements. These anchor statements describe a scale of negative to positive behaviour examples and form the basis for the feedback process. This competency framework allows the feedback to be structured around the competencies and behaviours of the organisation while delivering it in a mobile setting provides the flexibility required for continuous peer feedback and competency analytics.

III. Continuous Peer Feedback and Analytics

A. Peer Feedback

To explore some of the challenges in employee performance and development an event-based, continuous peer feedback approach was developed. This approach was delivered in the form of a mobile app to allow team members to have continuous access to feedback functionality both inside and outside the workplace.

The Feedback app, shown in Figures 2 and 3, can be used in two different ways; to request feedback from team members or to send feedback directly to team members. Both of these require the selection of three key components: a team member who will receive the feedback or request, a specific event such as a formal team meeting or informal discussion with colleagues, and a behaviour exhibited by the team member during the event. When giving feedback, an appropriate behavioural anchor can be selected using a slider to view the various statements as shown in Figure 2. To support the chosen behavioural anchor, two text statements can also be made. The purpose of the text statements is to give contextually relevant examples of what the person did well and could improve. This means that the feedback encapsulates both positive and constructive components which are important for effective feedback [9].

B. Competency and Behavioural Analytics

The Activity screen, shown in Figure 3, provides competency and behavioural analytics based on the feedback the user has received. Users can see a graph of their overall feedback frequency combined with aggregated ratings for
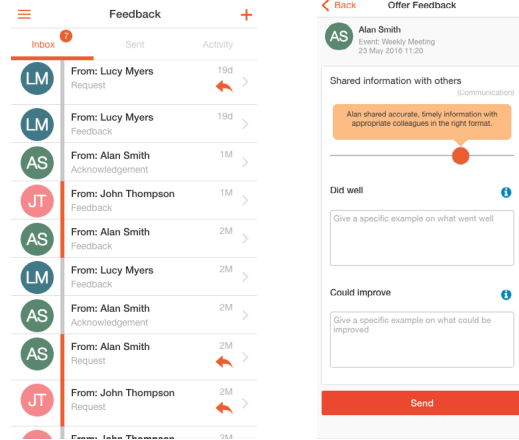

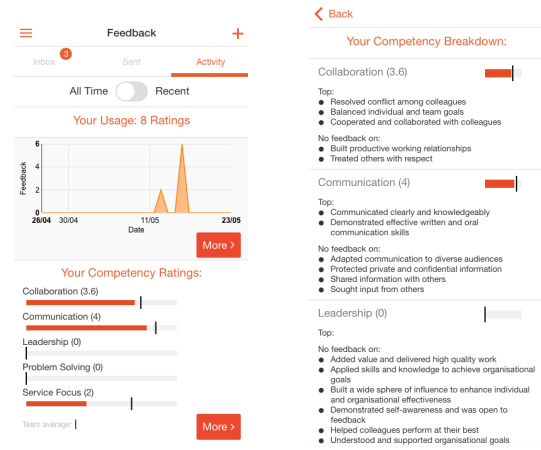Figure 2: Inbox and offer feedback screens

Figure 3: Competency and behaviour analytics screens

the five core transversal competencies. These ratings are extracted from the selected behavioural anchor statements and are converted into a 1 to 5 scale to give a quick overview of the team member's performance. This is also contrasted with aggregated competency ratings for the overall team.

Users can access a detailed breakdown of their ratings for every behaviour in the competency framework. The behaviours are ranked in order of the highest rated to the lowest rated including behaviours that are not rated. The app also provides a detailed breakdown of user activity. In this screen, the user is presented with their most rated events, most rated behaviours and most interacted with people.

Overall, these analytics provide practical and actionable information to the user at a behavioural level. The behaviours are the key drivers of professional development within the app and describe real activity in the workplace. The analytics also help users broaden the scope of their feedback data to incapsulate a wider variety of events, behaviours and people.
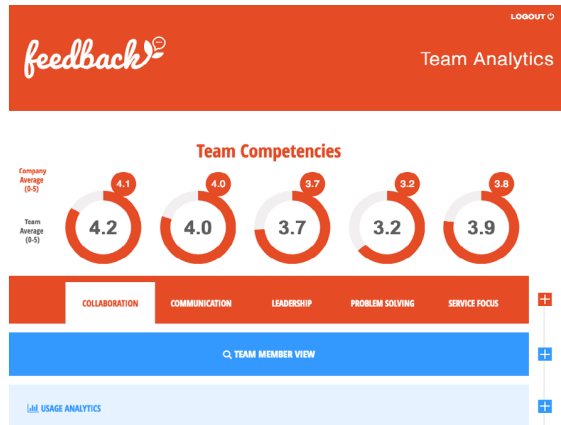
Figure 4: Team Analytics platform

C. Competency Analytics for Managers

The Team Analytics platform, shown in Figure 4, aggregates team data to give managers insights into the performance of their team across the five transversal competencies. For each competency, the team manager can view a graph which shows the history of team performance over time. This is also shown in the context of the current overall team rating, the current overall organisation rating and the number of recent feedback items. This gives the team manager access to the progression of that team over time and context to help interpret the significance of the data.

The team manager can select the "Team Member View", which displays a colour coded grid of each competency for each team member. This gives the team manager an overview of activity and ratings within the team and helps give context to the overall team ratings. Team managers can see which team members are and are not actively using the Feedback app which can help them to encourage a feedback culture. The team manager can select each member on the grid and view a graph of their ratings over time. Again, this gives the manager extra context for data in the grid view and shows when each rating was achieved by the team member.

A key aspect of the design of the Team Analytics platform is the separation between the feedback and the competency analytics. The team manager can see data about each member of the team but it is aggregated up to the competency level of the competency framework. Allowing team members to retain control and ownership of their feedback is important in encouraging an open and realistic feedback culture and, as a result, more accurate competency and behaviour analytics.

IV. Conclusions

This paper has introduced a novel approach to event-based, continuous peer feedback and competency analytics that supports performance assessment and professional development in the workplace. This approach is being trialled with existing teams in three different companies.

The early stage results have shown regular activity by a majority of users and a positive opinion of the app's usability. The results indicate participants are more comfortable using the app to give positive feedback and only occasionally give constructive feedback to their colleagues. Some early participant interviews have confirmed a number of reasons for this usage including a lack of experience with feedback and fear of causing offence to the recipient.

Overall, this paper has presented a new approach to support performance assessment and professional development in the workplace. It is becoming clear from the trials that organisational culture and the role of the team managers is critical to the adoption and effectiveness of continuous peer feedback and competency analytics. To support long-term use, it is likely organisations would need to instill and promote more open feedback cultures and provide significantly more training to support employees in giving and receiving effective feedback on a more regular basis.

References

[1] The European Lifelong Guidance Policy Network (ELGPN), "ELGPN Glossary," https://www.uhr.se/globalassets/syv/webbibliotek/metoder-och-begrepp/elgpn_tools_no2_glossary.pdf, October 2016.

[2] R. Leoni, "Workplace design, complementarities among work practices, and the formation of key competencies: Evidence from italian employees," *Industrial and Labor Relations Review*, vol. 65, no. 2, pp. 316–349, 2012.

[3] H. F. O'Neil, *Workforce readiness: Competencies and assessment*. Psychology Press, 2014.

[4] E. D. Pulakos, R. M. Hanson, S. Arad, and N. Moye, "Performance management can be fixed: An on-the-job experiential learning approach for complex behavior change," *Industrial and Organizational Psychology*, vol. 8, no. 01, pp. 51–76, 2015.

[5] M. Eraut, "Informal learning in the workplace," *Studies in continuing education*, vol. 26, no. 2, pp. 247–273, 2004.

[6] CompAssess, "State of the art of competence assessment with focus on transversal competences in vet," http://www.compassess-project.eu/wp-content/uploads/2016/02/State_of_Art_CompAssess_final_summary.pdf, October 2016.

[7] P. C. Smith and L. M. Kendall, "Retranslation of expectations: An approach to the construction of unambiguous anchors for rating scales." *Journal of applied psychology*, vol. 47, no. 2, p. 149, 1963.

[8] University of California, Berkeley, "Core competencies and behavioral anchors," http://hrweb.berkeley.edu/files/attachments/behavioral-anchors-matrix-core-competencies.pdf, October 2016.

[9] S. Gielen, E. Peeters, F. Dochy, P. Onghena, and K. Struyven, "Improving the effectiveness of peer feedback for learning," *Learning and Instruction*, vol. 20, no. 4, pp. 304–315, 2010.