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Is Feedforward the Way Forward? A comparison of the Effects of Feedforward Coaching and Feedback.

Strength-based psychological approaches are taking hold in diverse domains, including performance appraisals (Bouskila-Yam & Kluger, 2011), employee selection and also coaching (Linley, Woolston & Bieswas-Diener, 2009; Oades, Crowe, & Nguyen, 2009). Such positive approaches underpin a shift from being '*problem-focused* [italics added] to potential-guided and solution-focused' (Linley & Harrington, 2006). Sharpe (2011) talks about the "primacy of positivity", arguing that positivity in coaching should always precede other activities such as goal setting. We now turn to a specific technique which encompasses relevant principles. Situated in a positive psychological paradigm, the Feedforward Interview (FFI) (Kluger & Nir, 2006) is a structured conversation asking individuals to focus on their strengths by recounting a distinct positive experience and exploring the conditions necessary for this before turning to goal setting and action planning. The FFI thus encourages reflection on positive experiences and strengths, to induce positive emotions and provides a 'safe' context for information sharing and self-evaluation of *current* behaviours in relation to one's strengths. Whilst the individual FFI components have a comprehensive theoretical rationale and case studies provide some insight into potential FFI mechanisms, (Kluger & Nir, 2006; 2010), concrete evidence about any positive effects deriving from FFI for individuals warrants further investigation taking a rigorous quasi-experimental field approach is still sparse. This apparent need for more research is in contrast to the large body of research on feedback processes which focus on past experience and information and learning and reflection based on these (McDowall & Millward, 2010). The limitations of feedback have

long been noted, as have the complexities of feedback processes (McDowall, 2012). The psychological evidence is inconclusive about which feedback conditions facilitates positive outcomes, and potentially detrimental effects (Kluger & DeNisi, 1996). As there appears to be a need to apply and study strengths-based and positive activities, we now introduce FFI compared to Feedback in some detail, offering our rationale for studying its effectiveness as part of a coaching session.

What is Feedforward?

Kluger and Nir (2006) developed the Feedforward Interview (FFI) from (a) Appreciative Inquiry, an organisational development technique to structure organisational conversations around strengths (Cooperrider & Srivastva, 1987) and (b) Feedback Intervention Theory (Kluger & DeNisi, 1996) which spells out principles to explain feedback effects. Further theoretical considerations guiding the FFI approach are the utilisation of episodic memory for story elicitation, active listening and cognitive comparisons to facilitate motivation and change, as well as goal setting. In essence, the FFI is a semi-structured interview technique where the interviewer facilitates a loose script, where the interviewee is given space to share their story, through gentle questioning and prompting. In sequence, the FFI focuses on a (1) elicitation of a key event during which the interviewee felt at their best, (b) clarifying the conditions which allowed this event to happen, (c) the ‘high point’ of this event and the emotional experience thereof and finally future plans or actions. These principles are set out in Table 1, and lend themselves to be used flexibly in interviews, appraisals and coaching.

Note to editor: insert Table 1 about here.

In essence then, FFI sets out to facilitate learning from the experience of past success through cognitive comparisons (Carver & Scheier, 1981) by asking interviewees to note the conditions and compare these to the present time, in order to initiate behavioural changes through the setting of goals (Kluger & Nir, 2006).

Feedforward compared to Feedback

Feedforward clearly then has a future focus, where the onus rests with the interviewee to open up and share their success story. Feedback in contrast is focused on information from the past, and discussion thereof, and can, although does not have to be, deficit and development need focused. So is FFI better utilised instead of, or indeed before providing

any feedback to individuals? Kluger and Nir (2006; 2010) propose just this, stressing the positive effects of FFI compared to potentially harmful feedback. Whilst the use of information as feedback is part of self-regulation processes (Carver & Scheier, 1981), literature has yielded variable data about the consequences of feedback (see also McDowall & Millward, 2010). Kluger and DeNisi's (1996) meta-analysis of 607 effect sizes and 22,663 observations unravelled that Feedback improves performance moderately ($d = .41$), however for one third of observations there was a deterioration in performance, so individuals were in fact worse off having feedback than not having any feedback at all. Clearly, feedback processes are and remain complex despite the considerable research evidence (McDowall, 2012). One common observation appears to be that content matters, where positive feedback is recalled better and accepted more favourably by recipients than negative information (Snyder & Cowles, 1979) increases motivation to reach a desired goal, more so than negative feedback (Van-Dijk & Kluger, 2004). As individuals are overall motivated to see themselves in a positive light (Anseel & Lievens, 2006), there appears to be a case to generate evidence for positively focused and psychologically safe interventions. We now turn to the purported 'active ingredients' of FFI.

The 'active ingredients' of the FeedForward Interview

With regards to the emotional valence, recalling a "full of life, at best" experience during FFI is purported to foster positive emotions (Kluger & Nir, 2006. Retcher (2009) compared FFI to other conditions or interventions using a between-subjects experimental design involving; FFI, a neutral interview and a no interview condition. The results indicated that those who experienced FFI reported the most positive emotions.

FFI also focuses on *internal* discrepancy between the standards identified from discovering the conditions for success, and other internal information such as current plans for the future in contrast to potential discrepancies between external information and *external* ideas and self-referent information derived from Feedback (Kluger & DeNisi, 1996). This internal comparison is the essence of FFI, purportedly making it more difficult to give up the internal standards following recollection of success. Kluger and Nir (2006) suggest that the success story augments self-efficacy, induces positive emotions and hence increases the likelihood of behaviour change in light of the just-discovered conditions for success.

People's strengths appear difficult to define, as they are potentially unconscious and not necessarily expressed in overt behaviours (Aspinwall & Staudinger, 2003). Thus,

there is perhaps an overall need for further research as to how strengths can be made conscious and salient, and FFI integrated into coaching may be one way of doing so. Research to date indicates that strengths-use or knowledge can lead to a variety of positive outcomes including; heightened self-efficacy, self-esteem, well-being, goal-attainment, work-engagement and work performance (Harter et al., 2002; Govindji & Linley, 2007; Smedley, 2007; Proctor et al., 2009; Linley et al., 2010; Minhas, 2010).

As alluded to above, FFI's appreciative component, involving story-telling about a positive experience, has been suggested to evoke positive emotions and mood states, by bringing positive experiences to the forefront (Hermans et al., 1992). The experience of a positive mood state is linked to a number of positive outcomes, including increased creativity and willingness to co-operate (Fredrickson, 2001). Participants induced in a good mood are also more willing to accept negative feedback as shown in a laboratory experiment delivering either positive or negative feedback about achieving life goals (Trope & Pomerantz, 1998). In terms of potentially underlying mechanisms, Barsade (2002) suggested that positive emotions, which are also facilitated by FFI as discussed above, lead to an increased openness to new information, through introspective reflection on individuals' capabilities and their strengths.

Self-efficacy and goal attainment

Self-efficacy is the belief in one's own capabilities to execute an action in response to a prospective situation (Bandura, 1977; 1986). Social cognitive theory holds that levels of influences decisions to perform certain behaviours, effort and persistence during undesired situations, where a set of expectations, based on past experiences, are carried forward to future situations (Schwarzer, 1993; Sherer et al., 1982). Whilst the literature on FFI does not directly discuss self-efficacy overtly as a construct, FFI's positive, internal and self-enhancing focus may allow individuals to become more likely to become aware of their strengths (Govindji & Linley, 2007) and thus strengthen self-belief in their capabilities. The effects of feedback appear to run counter positive effects. In particularly predominantly negative feedback may lower self-efficacy through the potential discrepancy between the self-view (which may be positive) and 'feedback givers' view (which may be negative) (Bandura, 1986; Dweck, 1986; McDowall & Kurz, 2008).

Goals and their attainment are another motivational aspect, in addition to augmented belief in capabilities. Goal setting theory is cognitive in nature, and holds that the setting of

goals direct attention and provides motivational focus (Locke & Latham, 1990). Goals are a habitual element of many coaching and feedback processes, providing focus and a referent benchmark for coach and coachee alike (McDowall & Millward, 2010) to map out action plans and track what has and has not been achieved, and also where goals need to be revised. Goals and an associated cognitive comparison is also part of the FFI process, where individuals compare their current state and experience with any goals or future plans. Whilst there are many studies on goal *setting*, there remains a need to research under what conditions goals are best *achieved*.

Study rationale and hypotheses

In summary then, there appears some evidence for certain mechanisms of FFI, in that it appears to raise positive emotions. However, the other ‘ingredients’ merit further experimental investigation to test out a predominantly theory-driven tool which is purported to reside in a strengths-focused and positive paradigm, to enable participants to work towards their goals. To this extent, we set out to investigate to what extent such a positively focused activity raises strengths-confidence and also facilitates goal achievement. As it is also purported that the FFI works more effectively than a purely feedback based approach. However, the evidence base for feedback is in comparison much larger but also more disparate; whilst feedback remains a core activity in coaching (McDowall, 2012). To this extent, the current study investigated to what extent coaching sessions using feedback or FFI affect strengths-confidence, mood and self-efficacy at two time intervals as compared to any observed effects for a feedback condition. More specifically, our hypotheses were:

H₁: Participants will have higher self-efficacy following FFI than following feedback

H₂: Positive mood will increase more following FFI than following feedback

H₃: Strengths-confidence will increase more following FFI than following feedback

H₄: There will be higher goal attainment following FFI than following feedback.

Method

Participants

We recruited fifty four fulltime employees across a range of job roles and organisations (35 female, 64.8% and 19 male, 35.2%) with a mean age of 37.6 (*SD* = 14.0,

age range: 20 - 67 and 92% declared White British) through personal contacts and snowballing strategies to participate in this research, all had considerable work experience and none had previous experience of coaching.

Design

Participants were randomly assigned to either FFI ($N = 32$) or feedback coaching ($N = 22^1$) in using a between participants design. We took measures before and after each coaching intervention, the dependent variables were generalised self-efficacy, positive mood, strengths-confidence measured 1 week after participation, and goal attainment measured one month after participation as outlined below.

Measures

Generalised Self-Efficacy. We used the Generalized Self-Efficacy Scale (GSES, Schwarzer & Jerusalem, in Schwarzer, 1992); which contains ten items rated on a 4-point scale (1 = *not at all true*, 2 = *hardly true*, 3 = *moderately true*, 4 = *exactly true*), a sample item was “I am certain I can accomplish my goals”. Coefficient alpha was consistent with $\alpha = .83$ before and after coaching.

Mood. We utilised the Positive and Negative Affect Schedule (PANAS, Watson et al., (1988); measuring positive affect (PA) and negative affect (NA) respectively by participant rating of 10 adjectives each using a 5-point scale (1 = *very slightly or not at all*, 2 = *a little*, 3 = *moderately*, 4 = *quite a bit*, 5 = *extremely*). Alphas varied somewhat, for PA, the Cronbach alpha statistic was $\alpha = .53$ before coaching, and $\alpha = .85$ after coaching, and for NA $\alpha = .77$ before coaching, and $\alpha = .76$ after coaching.

Both GSES and Mood were measured before and after coaching.

Strengths-confidence. We asked participants to list their three key strengths to set a context for the subsequent discussion and facilitate ratings of the strengths confidence items. Participants listed a wide range of aspects such as organisation (10.6%), commitment/determination (7.5%), communication skills (5%) and work ethic (4%). We then asked participants to rate how confident they felt that the three strengths listed were indeed their key strengths; using an 11-point percentage scale (ranging from 0% to 100% both) before and

after coaching. We also wrote items specifically for this study, asking participants to rate five items tapping into strengths-confidence using a 5-point scale (1 = *strongly disagree*, 2 = *disagree*, 3 = *neither disagree nor agree*, 4 = *agree*, 5 = *strongly agree*), at time interval two in questionnaire 2 only (after coaching), an example item was “The coaching session has helped me clarify what I think my strengths at work are”. Cronbach alpha was recorded as $\alpha = .63$.

Goal attainment. We used Goal Attainment Scaling (GAS) which whilst initially developed in the mental health field has applicability in coaching to determine goal change (Kiresuk & Sherman, 1968; Ottenbacher & Cusick, 1990). Participants first agreed a specific goal during the respective session and discussed what attainment of this goal would look like. At the time of the follow up one month later, they then self-rated their attainment using a 5-point scale (+2 = *Much more than expected learning outcome*, +1 = *Somewhat more than expected learning outcome*, 0 = *Expected level of learning outcome*, -1 = *Somewhat less than expected learning outcome*, -2 = *Much less than expected learning outcome*.)

Finally, we included an open-ended item to allow participants to share their perceptions of the study experience.

The FFI and Feedback Interventions

Following a favourable ethical opinion from the researchers’ institutions and participants’ informed consent to participate, we agreed mutually times and locations for each coaching session, usually at the participants’ place of work. The second and third author (MSc students at the time) were trained in the respective coaching, feedback and FFI techniques and delivered the sessions. Each had undertaken a five - lecture module focused on coaching, and was trained specifically in the technique by the first author. All researchers had also trained in the certificates of competence for both ability and personality assessments in the workplace (as regulated by the British Psychological Society) to equip them to deliver the feedback sessions. Following consent and allocation to condition, we provided all participants with an information sheet about the respective condition. Each session took about 45-60 minutes, the FFI sessions slightly longer than the Feedback sessions on average; we counter balanced how many feedback and FFI sessions each researcher undertook. The Feedback condition consisted of a structured career focused discussion using the Career

Indepth Pathfinder Inventory statements (SHL, ND), discussing the participants' career preferences and plans. The FFI followed the script as outlined above, including the discussion of a 'success story', the conditions therefore, the high point, and the emotional experience and plans for the future. Participants recounted a range of differing experiences, all from a work context, including success around mastering a newly learned task or role or interactions with others.

Results

All variables were checked for normality and outliers, and missing data for one participant (who submitted a partially completed follow up questionnaire) was substituted with means as appropriate.

Testing H_1 , we conducted a mixed ANOVA to address the 2 x 2 (condition: FFI and Feedback, and time: pre and post coaching) mixed-research design. The mean scores for self-efficacy were higher after coaching ($M = 32.63$, $SD = 3.7$) compared to before coaching ($M = 31.5$, $SD = 3.65$), a statistically significant difference $F(1,52) = 5.40$, $p = .02$, $\eta^2 = .09$. There was a highly significant interaction between condition and time $F(1,52) = 57.89$, $p < .001$, $\eta^2 = .24$. Figure 1 shows that whilst self-efficacy increased for FFI, it decreased for feedback.

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We compared self-efficacy post FFI compared to Feedback using an independent t-test, revealing that participants reported greater generalised self-efficacy after FFI coaching ($M = 33.81$, $SD = 3.05$) compared to feedback coaching ($M = 30.91$, $SD = 3.95$), with a significant difference $t(52) = 3.04$, $p = .004$, $d = .73$.

Testing H_2 , we conducted another mixed ANOVA. The results of the main effect of condition revealed no overall significant difference for mood $F(1, 52) = 0.28$, $p = .129$, $\eta^2 = .001$; there was also no significant main effect for time $F(1,52) = .00$, $p = .98$, $\eta^2 = .00$ and no significant interaction effect, $F(1,52) = .77$, $p = .77$, $\eta^2 = .02$, we noted that positive affect increased following FFI, but decreased after Feedback.

Testing H_3 , a third mixed ANOVA elicited no overall significant difference for strengths confidence between FFI and feedback conditions $F(1, 52) = .00$, $p = .99$, $\eta^2 = .00$, or for time, $F(1,52) = .621$, $p = .43$, $\eta^2 = .012$. There was however a significant interaction

$F(1,52) = 5.16, p = .027, \eta^2 = .09$. Figure 2 reveals that whilst strengths-confidence increased for FFI, it dropped in the feedback condition.

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We then conducted an independent samples t-test showing that whilst participants reported somewhat greater strengths-confidence following FFI ($M = 80\%$, $SD = 13.68$) compared to feedback coaching ($M = 77.27\%$, $SD = 10.77$), this was statistically not significant.

Testing H_4 , we first explored the data. In the FFI condition, all 32 participants met or exceeded the goal they had set after one month, with 5 of them greatly exceeding the achievement of the goal, by scoring themselves as +2 in Goal Attainment; 21 participants scoring their goal attainment as a somewhat more than the expected learning outcome, and 6 participants scoring themselves as having met the expected level of learning outcome (0.)

In the Feedback condition, 13 participants met or exceeded the goal they had set after one month, with 3 participants having a somewhat higher than expected learning outcome and 10 participants scoring themselves as having met the expected level of learning outcome (0.) In contrast to the FFI group, 9 participants had a somewhat less than expected learning outcome after their coaching session (-1.)

We used an Independent Samples T-Test to measure the difference in goal attainment. The results indicated a statistically significant difference, with the FFI group significantly achieving more goals ($M = 0.97$, $SD = 0.59$) than the Feedback group ($M = -0.27$ $SD = 0.70$), $T(52) = 6.99, p = <0.005$.

Discussion

This research set out to investigate to what extent self-efficacy, positive mood, strengths confidence and goal attainment change following FFI as compared to feedback as part of a one off coaching session. To our knowledge, this is the first quasi-experimental study comparing FFI to feedback. We gathered support for H_1 , as taking part in FFI increased self-efficacy more than for the feedback condition, with a significant main effect for time and significant interaction, where self-efficacy dropped in the feedback condition. Whilst there was an increase in positive mood in the FFI condition, this was not significant statistically in

either the main or interaction effects; hence there was no direct support for H₂. With regards to H₃, whilst participation in FFI did increase strengths-confidence, the main effects for time and condition were not significant, there was however a significant interaction, showing that strengths confidence dropped in the feedback condition. Finally, participants in the FFI condition were far more likely to attain self-set goals than those who had participated in Feedback, lending supporting to H₄.

Taken together, our study provides quasi-experimental evidence that participation in FFI may indeed facilitate positive psychological change, and in particular affects individuals' belief in their respective capability as well as positive goal change (Kluger & Nir, 2006). In other words, the findings indicate that FFI might provide a valuable technique to facilitate goal attainment as well as increased belief in one's capability. It is likely that the self-directed and positive Focus of FFI accounts for these effects. Our findings extend the coaching literature. Whilst a previous study has shown that *using* ones strengths heighten levels of self-efficacy (Govindji & Linley, 2007), our findings show that the mere *discussion* and *reflection* on such strengths and good experiences during FFI also glean positive effects. Of course, it needs to be acknowledged that FFI may also play to general human preference, given that individuals are motivated to view themselves as in a positive light (Anseel & Lievens, 2006).

We observed no difference for positive mood following FFI or feedback. This is somewhat surprising given that the rationale for FFI includes the deliberate induction of positive emotions (Retcher, 2009). We content that a potential explanation for is observation is that there might be individual differences in the responses to FFI and in individual capacity to gain immediate benefits from a single interview (Kluger & Nir, 2006). Individuals may vary in their 'FFI curve', where any effects may take longer for some participants than for others. Given the explorative nature of the current study, we confined the process to one coaching study in each condition, but future research should take a more longitudinal approach. Additionally, there is the possibility that extraneous factors may have influenced reported mood when measured one week after the coaching sessions, including physical, psychological, social, environmental, stress and demographic variables (Taenzer et al, 1985; Teychenne, 2008; Bolger et al., 1989), and we recognise the difficult in accounting for these. Indeed, we cannot discount that any effects of FFI s may have diminished after that week, particularly without further support to assist transfer of learning.

On average, participants did have greater strengths-e confidence after FFI; however this was not statistically significant in the comparison to Feedback. Again, this finding is surprising given that FFI focuses on and positively reinforces the elicitation of strengths through active listening and facilitating reflection. In the qualitative comments, participants agreed that taking part in FFI indeed helped to *clarify* their respective strengths at work. Whilst uncovering and reflecting on such strengths is a core component of the technique, improved strengths-confidence may require deeper reflection, and also embedding through additional coaching sessions.

Participants attained significantly more goals following FFI compared to Feedback, and we endeavor here to offer an explanation for these effects. Kluger and DeNisi (1996) argue that individual motivation is facilitated when there is a discrepancy between any goals and their current state, but that different responses can occur, depending on the route of highest benefits and lowest cost. It is tenable, as feedback is more externally driven than FFI, that participants may be more likely to agree with self-referenced information, resulting in a lower motivational impetus. FFI directs attention to the participant, and internal standards and comparison processes (Kluger and Nir, 2006) and allowing increased control over the coaching process. Given that the process is focused on eliciting a story of success, FFI may create a discrepancy between how the individual currently feels about future plans, and their ideas of what conditions can enable success. Reflection on this discrepancy reduces the chances of the participant rejecting or ‘escaping from’ their goals, and therefore it is more likely that behavior will change as internal standards are renegotiated, as a result of the new internal knowledge.

We had not predicted the negative changes in self-efficacy or strengths- confidence in the feedback condition, or indeed the significant interactions. Previous literature has demonstrated lowered self-efficacy following negative feedback, whereby the process may have induced a discrepancy between the belief of the individual and the content of the feedback (Bandura, 1986; Dweck, 1986). Our research pointed to deleterious effects even for a positively framed feedback intervention, and deleterious effects for perceived strengths, too. Whilst not predicted as such, these results nevertheless call for further discussion and exploration in subsequent studies, given also that we observed a clear impact on behaviour – Feedback participants set fewer goals.

Research Limitations

Controlled experimental research including thorough baseline measures in coaching is still rare. We had deliberately used a longitudinal design however to test our hypotheses. Whilst we offer our quasi-experimental approach as a contribution on a potentially interesting and relevant but still relatively sparsely researched technique, we also acknowledge some of the methodological limitations. These include potentially fluctuating effects which our design may not have captured at the follow up interval. Whilst in an ideal world we may have wished to take measurements at additional intervals, our participants volunteered their participation, meaning that we did not want to impose unduly on their time, and hence kept the intervention groups to one session each. We also recognise that that the feedback group was somewhat smaller than the FFI group, which, although outside our control, nevertheless impacted the power of our design. Finally, we cannot preclude experimenter effects as it was not possible to conduct a double-blind experiment when the researchers themselves are involved in delivering the interventions. To render follow up research more robust, we would use an external practitioner to deliver the sessions to minimise such effects.

Proposed Future Research

Whilst we stress that researching one coaching session at a time can provide valuable insight, we recommend research into long-term effects and learning transfer of FFI in the workplace as a valuable next step, to investigate long term effects more fully over time. The goal setting element in itself also merits further follow up. Whilst we know that more goals were obtained in FFI, it would be helpful to ascertain how these may link to overarching plans and changes, for instance in relation to careers, well-being or other outcomes. In addition, further research adopting a formal measurement of the suggested 'positive spiral' (Kluger & Nir, 2006), perhaps even including observational techniques and subsequent coding of behaviour, would provide support for any positive emotions unconsciously displayed by the interviewee during FFI. Such an approach would allow additional insight into the immediate effects of FFI, for instance focused on emotion and mood experiences. Lastly, future research should also consider coach effects in more detail by obtaining data from coachees to determine which exact facilitation and questioning techniques (which FFI elements?) work best from their point of view.

Implications for Practice

Our evidence shows that a positive and future focused approach, as in FFI, reaps benefits for individuals in a coaching session. Whilst initially construed in an appraisal

context, FFI is a simple, flexible and accessible technique which can be adapted for other contexts. Research associates high self-efficacy with setting and achieving more challenging goals, optimism, increased effort, persistence and recovery (Schwarzer et al., 1996), our research showing that FFI has positive effects on self-efficacy, beliefs, and behaviour, as evident in goal attainment.

Conclusion

We report controlled quasi-experimental research showing that FFI affects self-efficacy and goal attainment, and an interaction for strengths-confidence. The findings thus indicate that taking part in the FFI prompts positive psychological change through a strengths-focused approach, whilst also indicating caution about the potentially deleterious effects of solely feedback-based interventions. Future research should focus on transfer of learning, consider coach effects and more detailed data from coachees. We hope that practitioners and researchers alike may adapt our approach and adopt FFI in their own contexts.

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Table 1: Key components of the FeedForward Interview (FFI)

Components	Key Content	Rationale
Eliciting a success story	Description of (self-selected) story when individual felt ‘at their best’	Focus on positive emotions and on episodic memory
The peak moment	Focus on the ‘high point’ or peak moment and experiences at the time.	Fostering of positive self-evaluation and emotions
Clarifying the Conditions	Individuals describe the facilitating conditions, such as the environment, the self and others	Clarification of optimal conditions
Further conversation: Feedforward to the Future	Individuals consider the degree to which immediate plans are in line with conditions elicited. Typically involves some type of gap analysis comparing the story to present conditions and action plan for the future	Use gap analysis and self-reflection to direct attention to the future for self-motivated change, recognition of potential discrepancy between current plans and “just-discovered optimal-performance” conditions (Kluger and Nir, 2006)

Figure 1. Self-efficacy before and after FFI and Feedback.

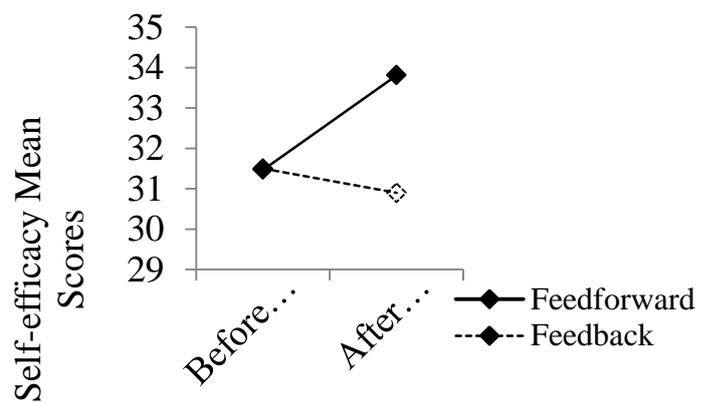


Figure 2. Strengths confidence following FFI and Feedback.

