Original Research

Developing Academic Leaders: Evaluation of a Leadership Development Intervention in Higher Education

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Abstract

Leadership development is not considered as a core component in higher education policies specifically when we examine the higher education polices of developing countries. To fill this gap, an intervention is designed to evaluate the impact of a leadership development program in academic leaders. The prime objective of this intervention was to promote awareness among university deans and heads by adopting transformational leadership in their leadership practices. An experimental research design was adopted to map the effects of a 6-week intervention and to evaluate the variations in related six transformational leadership behaviors. Up to 37 academic deans and heads from public universities were involved in this research. Content analysis was carried out to analyze the collected data. Bloom's taxonomy was adopted as a framework for the analysis. Three lower levels of Bloom's taxonomy were used to identify the awareness indicators. An extensive increase in awareness levels was identified in relation to all six transformational leadership behaviors, and more specifically, a prominent progress was observed at the application level. In addition to implications and limitations, directions for future research were also discussed.

Keywords

leadership development, transformational leadership, academic leadership, training program, intervention study

Introduction

Academic leadership development has recently emerged as an important area of research considering the varying role of academic leaders in managing universities in terms of the promotion of teaching, learning, research, and technology. This has attracted the researchers but remained mostly confined to the developed countries (Bolden et al., 2012; Evans et al., 2013). Yet the landscape of the public and private universities across the globe has been changing due to expansion and new higher education policies (Altbach, 2014). This has revealed the need on the part of universities to think about professional development of the bureaucratic nature of professors to assume leadership roles.

At universities, generally senior professors attesting teaching and research accomplishments are rewarded with significant leadership roles as deans and department chairs, even without considering their leadership skills and competencies (Ruben & Gigliotti, 2016), so this rather relies on accidental leadership (Müller et al., 2017). Professors usually consider their teaching and research experiences enough to suit leadership positions. However, seniority is no longer an adequate requirement to work on such crucial positions.

In the Pakistani context, leadership development is not a priority for policymakers and leaders. In fact, these policymakers are also retired or in-service professors; therefore, leaders' professional development is a matter of readiness and will, both lacking in view of leadership development. Next, the strong political culture of Pakistani universities, implying internal and external pressure of teachers' and students' unions, and the bureaucratic nature of professors with traditional mind-sets often self-centered, short-sighted, or mostly passive, and with a low interest in their professional development, are huge challenges in leaders' professional development (Abdullah, 2011; Tanveer, 2020).

Moreover, academia also gets affected due to their untrained leadership, while on the contrary, faculty members complain about their unsteady promotions, decreased academic freedom, lack of monitoring and evaluation in teaching and research,

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budget deficits, and politicized working environments (Akhtar & Kalsoom, 2012). Thus, increasing public demands and changing educational legislation and policies are putting pressure on higher education leaders to be more skilful and competitive for sustainable growth and to cope with the above-mentioned challenges (Mahmood, 2013). Undoubtedly, the success of an institution depends on strong leadership (Aslam et al., 2014).

Considering the challenges and transformations in the 21st century, the need for leadership development initiative has been recognized in academia (Gigliotti & Ruben, 2017). Ruben et al. (2018) further emphasized the magnitude of leaders' professional and personal competencies and tools to translate their vision into reality.

To move forward, universities require a transformational leadership (TL) approach for the development of their academic leaders and that fits Pakistani universities too. The results of the baseline surveys and the exclusive conversation with academic leaders also stressed the need of leadership development in Pakistani universities (Zulfqar, Valcke, Devos, Shah, & Shahzad, 2016; Zulfqar, Valcke, Devos, Tuytens, & Shahzad, 2016). To address this key issue in academia, an experimental research design was adopted to raise awareness among academic leaders of three faculties from two public universities in Pakistan.

Conceptual Framework

Our research is driven by the conceptual framework of the transformational leadership theory to design and implement a leadership development program.

Transformational leadership

Academic leadership is different from general leadership, as it does not involve stringent hierarchical structures and usually leaders depend on collegial bodies. The collective responsibility and consultation regarding important decisions refer to shared leadership approaches (Zulfqar, Valcke, Devos, Tuytens et al., 2016). Mathews (2006) focused on studying leadership and observed a gradual move away from typically bureaucratic and vertical leadership styles to a "flat" leadership approach. The latter implied the delegation of responsibilities to lower levels, and the promotion of collective identity and loyalty to the institution.

Adopting a TL style in a developing-country context may be encouraging and promising, as such leaders feel stronger because of their followers' support and collaboration. Empirical proofs provide strong evidence that TL is a universally accepted leadership style (Bass & Riggio, 2008) similarly in academia (Bolden et al., 2015; Dinh et al., 2014; Evans, 2017; Zulfqar et al., 2016).

TL was first introduced by Burns (1978), who was the first scholar to distinguish between the concepts of TL and transactional leadership. Later, building on the initial work of Burns's (1978), Bass (1985) extended the concept of TL.

This is a multidimensional concept, involving an ongoing debate on the available models of TL (Riggio, 2008; Van Knippenberg & Sitkin, 2013). Ample literature is available highlighting the multiple behavior modes of a transformational leader; nevertheless, there are a lot of attempts to refine these behaviors and to present a comprehensive model of TL (Avolio et al., 1999; Bass & Avolio, 1990; Kouzes & Posner, 1995).

Compared with other models, the model of Podsakoff et al. (1996) can be considered as a complete model of TL as this type comprises all six key modes of behavior of a transformational leader (Hardy et al., 2010).

Articulating a vision. Transformational leaders can foresee the future and develop an ideal image of the organization by setting up future goals (House, 1977). They inspire their followers through their visionary approach which helps to create a shared culture in the organization.

Providing an appropriate role model. Such leaders present themselves as role models to their followers, which means leaders go first. They set an example for others by suiting their actions to their words, which subsequently builds their credibility as leaders (Kouzes & Posner, 1995).

Fostering the acceptance of group goals. This is the hallmark of transformational leaders, as they promote a collaborative culture in the organization (Bradford & Cohen, 1984). They foster harmony in their team members to achieve the shared goals.

High-performance expectations. Transformational leaders encourage their followers to perform beyond the level of expectations (Abrell et al., 2011; House, 1977). Such leaders set high performance standards.

Providing individualized support. Rafferty and Griffin (2004) asserted that transformational leaders always provide socio-emotional support to their followers to solve their problems and to increase their potential and performance in the organization.

Intellectual stimulation. Transformational leaders encourage their employees to think about the problems in innovative ways and use their abilities to come up with concrete solutions (Kouzes & Posner, 1987). Such leaders thus build a creative environment of the organization where they can recognize the potential of their team members.

This study is scaffolding on the above-highlighted six modes of behavior of TL presented by Podsakoff et al. (1990). The growing attention paid to TL in academic settings fits the numerous changes imposed on academic organizations, including universities in Pakistan, such as new quality assurance and quality enhancement requirements, implementation of (inter)national competency frameworks,

implementation of innovative teaching and learning approaches, new staff management policies, tenure track systems, and so on. These innovations call for trained leaders that fit accountability and help boosting organizational effectiveness (Paulsen et al., 2013).

Leadership development in higher education

Besides the growing insight that good leadership requires a specialist professional attitude based on formal preparation, it is also argued that academic leadership can be developed through informal learning and work experiences (Sparr et al., 2017). This primarily involves daily experiences based on multiple tasks, social interactions, handling risks, and dealing with diversified workforce. Moreover, leadership development through informal learning is based on metacognition, self-direction, and trial and error (Le Clus, 2011). In contrast, leadership development through formal learning occurs in a formal setting by engaging in different types of formal and planned activities, for example, discussions, simulations, and role-plays (Enos et al., 2003). The critics of formal training raised questions on the generalization and acquired skills resulting from such training and linked this to the perceived knowledge and skills of the trained personnel. Such leaders can apply certain amounts of knowledge and skills called transfer-of-training, but the learned experiences may not fit each situation (Wilson & Hartung, 2015). Nevertheless, informal and formal learning of leaders go hand in glove and formal training extends informal workplace learning through transfer of training (Sparr et al., 2017), thus enhancing efficiency and professional development.

At universities, academicians have been trained to teach and to conduct research (Strathe & Wilson, 2006). These are key criteria to get promoted to leadership positions. As there is less focus on leadership development, academic leaders face tension between research and teaching on one hand and leadership responsibilities on the other (Morris, 2008; Strathe & Wilson, 2006). They often feel overburdened by their responsibilities; they also underestimate the complexity of their assignments and neglect teaching and research responsibilities (Hill, 2006).

McCauley (2008) highlighted that in best-practice organizations, leadership development is closely tied to the vision, values, and goals of the organization and leadership development is at the core of an organizational strategic planning. But as stated earlier, this is not common practice at universities. An extensive review study of Dinh et al. (2014) who studied 10 top-tier academic publications in the period of 2000–2012 concluded that only 9% of the articles focused on specific academic leadership development studies. This is in sharp contrast to the need for leadership development. Steinert et al. (2012) indicated in their review of higher education leadership training approaches—set up in the medical education field—that from the initial 530 studies developed between 1985 and 2010, only 19 studies focused on 14 interventions with leadership as a primary focus.

The above literature is helpful to outline characteristics of potentially successful interventions: long-term and based on group instructional settings, mentoring, individual and small group work with a focus on experiential learning, structured practice opportunities, personal goal setting, planned team meetings, case-based learning, and role-play (Richard & Flavell, 2011). Most trainings start from a "needs assessment." But, reviewers also stress that the reported studies show flaws as to the research methodology: lack of validated instruments, lack of reporting effect sizes, lack of actual outcome measurement as compared with "perceptions" about impact (Avolio et al., 2009). Collins and Holton (2004) pointed at the lack of systematic evaluation of the leadership training interventions (p. 53). Studies hardly examine how learning outcomes have been translated to the work setting and most evaluations remain very general and are only set up during and at the end of the intervention (Cromwell & Kolb, 2004).

Objectives of leadership development program and framework for assessment

Usually, the core objectives of leadership development programs are to raise awareness about leadership roles and to equip leaders with leadership skills and knowledge (Goleman et al., 2002; Lord & Hall, 2005). Leadership awareness is also considered as a cognitive scheme (Church, 1997), as the better cognitive skills lead to better leadership development. This also allows leaders to examine their own leadership concepts and experiences accumulated over time (Roux & Härtel, 2018). These involve awareness of one's own cognitive assets—experiences and skills. Leadership awareness can be considered as a prerequisite for knowledge and comprehension that could then assist in experiential settings where the individual can apply that learned awareness in particular situations (Falk et al., 2015).

Bloom's revised "Taxonomy of Learning Domains" facilitates to assess skills and behaviors which are crucial to learning. The taxonomy can be used as a framework for assessing and understanding the set of activities and programs. Thus, in view of leadership development, leaders first remember the content and articulate the relationships (Falk et al., 2015), then motivate leaders to develop their understanding about certain tasks through discussions and examples (Meyer, 2015); and finally demonstrate and practice the learned concepts, theories, and principles. Because knowledge for the sake of knowledge may not benefit the leaders and the institute, but aligning all three levels—remembering, understanding, and applying—provides the basis for creating a transformational effect on the individual. Furthermore, practice and experiences could also take leaders to higher order skills (Falk et al., 2015).

We will mainly focus on the three lower levels of Bloom's taxonomy: "remembering, understanding, and applying." A recurrent practice when building on Bloom's taxonomy is to define "action verbs" that represent the mastery at a specific taxonomical level. These verbs are considered being indicators of the intended learning outcomes at the "awareness" level. Recent leadership development research—although outside the academic domain—reflects the efficiency of this approach (Richter et al., 2016). In view of the study, discussed below, we present the following indicators:

Remembering is defined as "retrieving relevant knowledge from long-term memory" (Weisi & Zamani, 2015). This is reflected in the following indicator verbs when assessing learned behavior after a leadership training: *articulate, define*, and *identify.*

Understanding is defined as constructing meaning from oral, written, and graphic communication (Anderson & Krathwohl, 2001). It can be reflected through the following actions: *discussing, describing*, and *exemplifying.*

Applying is defined as a process of executing and implementing (Anderson & Krathwohl, 2001). Application level is the ability to execute the learned concepts in new situations. After a leadership training, we expect this is reflected through the following actions: *demonstrate, develop*, and *practice.*

The indicator verbs do not only help evaluating the outcomes of a leadership intervention. They also help—from the onset—choosing adequate didactical strategies to develop this behavior during training. Richard and Flavell (2011) further endorsed that these didactical strategies assist in achieving the specific results at the expected levels of assessment.

Building on the need for TL development at universities, this study has been set up to design a leadership development intervention, to implement and evaluate the impact of intervention in academic leaders by focusing on the three lower levels of Bloom's taxonomy as a framework for assessment.

Research Design

Research question

The study aims at enhancing leadership awareness of academic leaders through participation in a TL development program, based on the following research question:

Research Question: Do academic leaders, who participated in a leadership development training program, reflect to a significantly higher extent awareness of their leadership practices as compared with academic leaders in a control group?

Procedure

To raise awareness in academic leaders about their leadership practices, a training program was developed for university leaders based on TL. Academic leaders—deans and heads—were invited to attend this training program considering the faculties and departments are the main operational units at universities. The training program was implemented in the two public universities of Punjab, the largest province of Pakistan. An experimental research design was adopted to identify the awareness level of academic leaders before and after the intervention. An interview protocol based on semi-structured interview questions was prepared to map their awareness level concerning the six TL behaviors. All the academic leaders involved in an experimental group were interviewed before and after the intervention. The participants involved in a control group were interviewed only once before starting the intervention. Considering their work schedules, it was not easy to interview these leaders a second time, outside a training context. Informed consent was acquired from all the academic leaders—deans and heads—after an initial orientation session about the training program. During the orientation, participants were informed about adopted research ethics, for example, data handling and reporting standards.

Leadership training intervention

The leadership development training program was based on six sessions; each session focused on a particular TL behavior. The training sessions took place in a spacious room of each university, with all audio-visual aids available to be used during the training program. The training content and training sessions were developed and conducted by the first and the second author of this study. The needs assessment survey (Zulfqar, Valcke, Devos, Shah et al., 2016) results and available literature on leadership development facilitated to frame the content of the training program.

Content of the training

As mentioned elsewhere, two needs assessment surveys were conducted by the researchers to analyze the leadership practices in Pakistani universities. A qualitative survey was conducted with deans and heads to study their leadership practices. This provides an in-depth insight about their leadership styles, roles, and their dealing with teachers and staff members.

Next, a quantitative survey was conducted with their teachers in the same faculties and departments to know about the current leadership practices of their deans and heads. Teachers reported on the leadership behavior of their deans and heads. This was a kind of authentication to ensure the reliability of the findings of qualitative surveys, also providing a broader view of leadership practices in the Pakistani context. As teachers are the main stakeholders in leadership practices, this was the reason to involve teachers in the survey study, because deans and heads are to deal with their faculties all the time and they cannot run their faculty

departments without teachers. This helps to plan the intervention and to prepare for the training content.

Thus, this leadership development program considers the results of the survey studies. Surveys were conducted by using the lens of TL in the same universities where the leadership development program was implemented. So, it was identified that leadership in Pakistani universities is to a certain extent transformational in nature as deans/heads and their teachers reported on perceived leadership behaviors (Zulfqar, Valcke, Devos, Shah et al., 2016). These leaders work in a constructive cooperation environment. And as professors, they have modeled these behaviors in teaching and research while interacting with colleagues and they have also been involved in a number of statutory bodies to play their due roles in institutional decision making, for example, teaching and research boards, admission committees, semester implementation committees, and selection boards. Leaders may develop these behaviors through informal learning experiences or their inborn leadership traits while working in leadership positions.

However, there are certain behaviors that need further development, for example, articulation of the vision, fostering the acceptance of group goals, and high-performance expectations (Zulfqar, Valcke, Devos, Shah et al., 2016). The actual content of the training sessions was defined by an in-depth literature review of the six TL behaviors. Each individual session focused on one specific TL behavior. As stated above, developing leadership awareness requires an adequate selection and implementation of fitting didactical strategies (Reigeluth, 1999). In the training process, it is not only important to state "what" has to be learned, but also "how" this is to be learned. Therefore, didactical strategies were selected to attain objectives positioned at the three first behavioral levels in Bloom's taxonomy: remembering, understanding, and applying (Anderson & Krathwohl, 2001):

- *Lectures*: The trainer presented and illustrated basic concepts and ideas. Often, this "explanation" was linked to giving examples, listening to audio-clips of interviews with leaders and presenting cases.
- *Case studies* are based on a real "problem" that is mostly complex and linked to the training context reality. Case studies imply developing case solutions through discussions with participants (Clark & Blake, 1997). Case studies allow learners to get easily involved in deep-level discussions with their peers and/or trainer. The highest impact is attained when learners bridge the distance between their actual work setting and the learning context. This fosters reflection on their personal practices and helps sharing experiences with others (Bush et al., 2007). As a result, next to developing a conceptual basis through lectures, cases helped introducing the local university context of the participants. Cases could easily be selected by building on the research outcomes of earlier studies involving Pakistani university leaders.
- *Simulation/role-play* is an interesting method to foster active learning. They offer immediate practice opportunities and result in immediate feedback (Reigeluth, 1999). A particular type of simulations in the context of social sciences is role-playing. We involved participants in such "role-plays." They were asked to play a role about certain situations. Other participants were asked to observe role behaviors. This resulted in group discussions and participants giving feedback to each other. It also invoked a high level of motivation for being actively involved in the training.
- *Collaborative learning* is a methodology based on tasks set by the trainer who invites group members to tackle this task and come to a group solution. It is an established method to attain cognitive and behavioral objectives (Schellens & Valcke, 2005). Authors stress the need for presenting scripts to participants to invoke productive task-oriented behavior. These scripts present guidelines, roles, procedural steps, and so on (Kollar et al., 2006). The complete training framework of activities can be found in Appendix A (Table A1).

Basic format for the leadership training

Each session was started on the basis of the Metaplan technique (Metaplan, 2000). This implied that each participant-leader started individually by giving input about a problem, question, or case on a colored card. Next, these cards were put on a soft-board and discussed by the group through (a) prioritizing ideas or (b) structuring the ideas (clusters, order, and importance) or (c) adding examples. At the end of each session, a video clip was presented—developed by the second author of this article—summarizing and recapitulating the key concepts related to the specific TL behavior central to this session. The concluding part was enriched with some examples and referring to former and upcoming TL training sessions. This can be used as a take-home message at the end of the training session to prompt leaders about specific learned TL behavior.

Pilot version of the training program

Before the implementation of the intervention, the training program was tested involving a smaller sample. The pilot study was implemented in one public university. The same format—as planned for main interventions—was adopted to implement the intervention. Nine academic leaders (deans and heads) were involved in this pilot testing. The training lasted for 6 weeks but we did not involve a control group in that pilot version. Pilot study results provided the ground to move on to the main intervention. The pilot

version of the intervention resulted in few changes in the content of the training and activities set up during the sessions.

Sampling

This study is part of a large-scale project about studying and developing leadership in Pakistani universities. As to this specific study, two public sector universities of the Punjab province were chosen on a convenient basis—out of the earlier five selected universities (three public and two private ones) that were involved in survey studies—to take part in this intervention. No private university was involved, considering this would increase the researchers' workload to involve participants in both control and experimental conditions and related interview administration, within too narrow a time frame.

In total, 37 academic leaders—deans and heads—took part in this intervention. Deans in Pakistani universities are responsible to lead the whole faculty, comprising many departments. Deans cooperate directly with vice-chancellors and heads of the various departments constituted in their faculties to translate vision into practice and to maintain performance standards. Deans hold strong academic, administrative, and financial power to run their faculties.

Next to deans, chairpersons lead their departments and ensure the smooth functioning of their departments by focusing on the following aspects: ensuring discipline in the department, managing and planning departmental budgets, planning initiatives in view of teaching and research, handling teachers' and staff matters, and so on.

Both selected universities are tagged as university = A and university = B. In the experimental group, 20 leaders from University "A" and 15 leaders from University "B" were invited to take part in the interventions on a convenient basis. The unbalanced number of the selected leaders were based on the faculties/departments of the universities. But, due to leaders' engagements and time constraints, only 16 leaders from University "A" and nine leaders from University "B" upheld their attendance in all six sessions. As to control groups, there were 12 academic leaders, six leaders from each university involved in this study.

As to the demographics of these participants, their average age was 30 to 60 years with 1 to 30 years of experience. All the participants were holding leadership positions at the faculty (dean) and departmental level (head). Names of participants and universities were re-coded to ensure confidentiality.

Data collection

As stated above, a semi-structured interview protocol was designed to collect data from academic leaders about all TL behaviors. The interview protocol covered all the aspects of the interviews from the introduction of research to the information provided at the end of the interview. The respondents who were involved in an experimental group were interviewed before and at the end of the intervention. The control group participants were only interviewed in the beginning of the intervention because they were not involved in any training session. All interviews were conducted on a one-on-one basis and recorded for analysis purposes; the duration of each interview took between 20 and 45 min (the interview protocol is attached in Appendix B).

Data analysis

All the recorded interviews were transcribed to grasp certain results. Qualitative data handling software "NVivo" was used to organize and handle the transcribed data (QSR, 2015). As explained earlier, the main objective of the intervention was to raise awareness among academic leaders about their TL practices and behaviors. Bloom's revised taxonomy of learning objectives was implemented as a framework for the analysis. A coding matrix was developed focusing on three main awareness categories: remembering, understanding, and applying. Next, subcategories were defined based on action verbs fitting each main category. These verbs—already discussed above—were considered as indicators for each awareness level. The complete coding matrix can be found in Table B1 (Appendix B). All the interview responses in view of each TL behavior were considered as complete units of meaning. Each unit of meaning was screened to identify relevant indicators (Gumus et al., 2018). This implies that it was possible to track multiple indicators for different awareness levels within a single unit of meaning. The qualitative analysis was carried out for both the pre- and post-intervention interviews. To determine the coding reliability, one independent coder (not familiar with the study) was hired to code 10 interviews randomly selected from the pre- and post-interviews, and from the different groups of leaders (Tistad et al., 2016). The resulting inter-rater reliability was 83%, which is in accordance with the standard of Miles and Huberman (1994).

To see a better picture and variation in results in relation to each TL behavior, the findings of the coded data were presented in a quantitative form. To grasp the difference in leaders' awareness level, a proportional number of their responses were calculated. The number of indicators found for each TL behavior and for each awareness level were divided by the number of interviewed leaders. In this way, awareness levels for each TL behavior could be compared between groups, and before and after the intervention. Table C1 (Appendix C) displays a detailed overview of the results. Table D1 (Appendix D) presents a summary of pre- and post-intervention results. In view of presenting results, we will not report the findings of each university and each leader as this is not the objective of the study.

Results

Building on the results in Tables C1 and D1, we first present the pre-intervention results to map the awareness level of academic leaders in relation to each TL behavior. Next, post-intervention results were reported to track the changes in the awareness levels of leaders.

Pre-intervention results

The pre-experiment results identified that leaders (deans/heads) showed—a rather basic—awareness about all six TL behaviors. To illustrate the quantitative data presented in Table D1, we present interview quotes exemplifying these baseline results.

Articulating a vision: As to this first TL behavior, analysis reflected the awareness indicators mostly at "remembering and understanding" levels. The "application" level was not identified in both groups "pre-experiment and control group." One of the leaders explained,

> *Leaders must be in regular contact with their team members. They should select some focal persons for implementation of the tasks. (LU0205)*

Another leader stated,

> *Just by doing this, leaders should involve themselves. They should not lock themselves in their castles and expect all from others in their offices, leaders should be part of that team. (BU0303)*

These fragments show the extent of their understanding of this behavior. But leaders did not underpin their understanding with personal examples. Rather, they suggested strategies to adopt these practices.

Appropriate role model: As to awareness indicators "remembering" and "understanding" deans and heads showed their awareness in relation to this behavior. However, once again, the application level was not noticeable. Moreover, respondents could not report practical examples of this behavior, which questions its application level. A leader explained this as follows:

> *The action of the leader is necessary. When you do not model the behaviour that you expect from others, people will not follow you. (LU0302)*

Providing individualized support: Interview data showed that leaders have sufficient knowledge about this behavior. A number of relevant observations were identified at two basic levels of Bloom's taxonomy: "remembering and understanding," a few indicators of awareness were observed at the "application" level. The following quotes illustrate their remembering and understanding level. A leader explained,

> *I think, you have to have a certain amount of sympathy and empathy with your team. You have to understand their problems. (LU0206)*

Fostering the acceptance of group goals: As to this fourth TL behavior, findings indicated their awareness at two basic levels "remembering and understanding." As to the application level, a lower level of collaboration was identified but limited to administrative tasks only. A leader told the interviewer,

> *Teamwork is important, if faculty members do not demonstrate collaboration, then things will not be in order and nobody will take the responsibility. (BU0302)*

High-performance expectations: A lower level of awareness reported by academic leaders which were again limited to "remembering and understanding." As to the application level, both groups showed their awareness to a lesser extent. A leader stated the following:

> *If we grow, we have to improve our standards, otherwise we will lose our identity. (LU0103)*

Another leader explains,

> *I think feedback is important in setting standards. I am used to take written feedback. (BU0303)*

Intellectual stimulation: Coded data identified a sufficient amount of awareness about their leadership practices at all three levels. However, comparing the awareness level with remembering and understanding level, the application level was quite weak. Most application examples were linked to leaders expressing their appreciation or giving monetary rewards. But their comments remained rather abstract and concrete examples of "how" they appreciate their staff and how they motivate them were lacking from the interviews. A leader stated,

> *Financial incentives are only at the university level but being the head, I can appreciate my teachers and motivate them. (LU0208)*

To conclude, the baseline results indicated a basic level of awareness of each TL behavior. Specifically, the "application" level was hardly identified in all TL behaviors in both groups. The baseline results showed the need to initiate a leadership development intervention.

Post-intervention results

Figure 1 summarizes in a quantitative way the changes in the three awareness levels for the six TL behaviors before and after the leadership development intervention. Table D1 provides more details to prove this and shows how far each TL
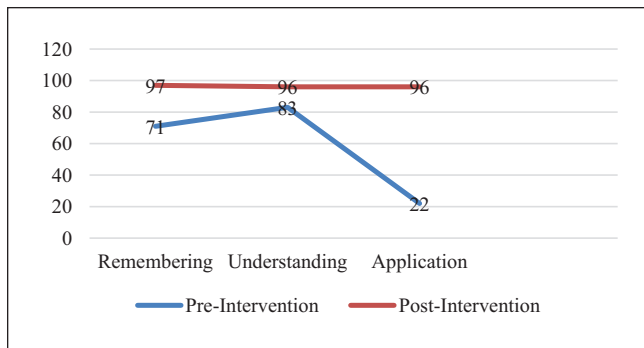
Figure 1. Pre- and post-intervention results based on the awareness indicators and in relation to each TL behavior.
Note. TL = transformational leadership.

behavior and awareness levels increased after the intervention. We discuss these changes in view of each particular TL behavior. Overall, the standardized number of indicators for all TL behaviors increased from 4.75 to 11.56 per leader.

Articulating a vision: Post-intervention results clearly showed an increase in the awareness level in setting and articulating the vision. As to "remembering" and "understanding," a significant rise was observed in the awareness indicators in the post-intervention findings (1.44 as compared with 0.30) and (from 0.18 to 0.48). A positive increase was identified at the "application" level (from 0 to 0.4). To conclude on this behavior, a consistent change was observed at all awareness levels (from 0.48 to 2.32). One of the leaders emphasized,

> I have instructed their teams about the tasks assigned to them. For example, one team is working on developing the curriculum, another is working on establishing a new library. We are putting our vision into action; we are all going to nurture and develop it. (LU0307)

Appropriate role model: Pre-experimental results showed that leaders adopted a rather basic conception of this particular TL behavior. How they could actually be a role model was lacking from their interview responses. This changed after the intervention. Post-intervention data pointed at an overall increase in the three awareness levels (from to 0.91 to 1.56). First, there was a little improvement as to this TL behavior "remembering" (from 0.35 to 0.48) and "understanding" (from 0.51 to 0.68). Post-intervention results showed that leaders shared their experiences in view of this behavior. Next, a significant change was observed in the "application" level (0.05 to 0.4). The following interview quotes give evidence of increased awareness levels.

One leader stated,

> You have to be a role model for your team. We set our priorities, I set some rules, and first I have to follow those rules myself. If I expect them to be punctual in classes, I have to be punctual first.

> If I ask them to be disciplined, I have to be disciplined myself. (BU305)

Providing individualized support: The *picture* in relation to this behavior is quite clear after the intervention, as an increase in the awareness level was identified in all levels. As to "remembering," comparing with pre-intervention results, we observed an increase (from 0.45 to 0.6). In relation to "understanding," a slight enhancement in awareness indicators was reflected (from 0.67 to .96). As to the "application" level, a positive change was indicated (from 0.24 to 0.92). It is also important to stress how we observed an overall increase in indicators for this TL behavior (from 1.37 to 2.48) at each level of Bloom's taxonomy. This may exemplify the successful impact of the training intervention. One of the leaders explained this as follows:

> Leaders have to be open to their colleagues and should adopt a "WE" approach. Everyone can come to me; I have an open-door policy in our department. Being a leader, you have to put yourself in another person's shoes and then see what another person is doing and feeling. (LU0201)

Fostering the acceptance of group goals: Post-intervention results reflected a positive upturn in all the awareness levels of leaders. As to the first level "remembering," analysis reproduced the same picture when compared with pre-intervention results (from 0.24 to 0.28). As to "understanding," post-intervention results showed a definite increase at the awareness level (from 0.21 to 0.48). However, post-intervention results provided clear evidence that leaders foster their level of collaboration with their faculty members. Thus, improvement at the "application" level was observed (from 0.08 to 0.56). Overall, a critical increase in awareness was observed comparing pre- and post-intervention results (from 0.54 to 1.32). One of the leaders explained,

> I have learned to encourage them, I usually assign tasks in pairs, if one is assertive and another one is shy, I pair them. This way at least one should know how to get things done. When you take everyone on board, just give them authority, then they feel confident and motivated. I say: I know you can do it in a good way, and I am here to help you. (LU0105)

High-performance expectations: Unlike other behaviors of TL, the baseline in leaders' awareness of this TL behavior was not high before the intervention. After the intervention, the picture has completely changed (from 0.48 to 2.08). As to "remembering," results indicated a definite improvement (from 0.18 to 0.68). As to the next level, "understanding," post-intervention results showed a robust increase in awareness level (from 0.21 to 0.68), surprisingly, in the "application" level (from 0.08 to 0.72). One of the leaders said,

> Great expectations encourage, I set targets to my faculty and that stimulates them. At the same time, it shows my expectations

from them when I provide feedback about that task. This is another way to motivate them to achieve their targets. (LU0210)

Intellectual stimulation: After the intervention, interviews reflected a significant increase at all awareness levels (from 0.95 to 1.80). In view of "remembering" and "understanding," post-intervention results were stable as compared with baseline results (from 0.37 to 0.4) and (from 0.43 to 0.56). However, robust variation is identified at the "application" level (from 0.13 to 0.95). A leader explained implementation of this TL behavior as follows:

Leaders have to be with their teams all the time so that they feel motivated. I learned in training how to appreciate the faculty. Now I give due recognition to their efforts and acknowledge their efforts in front of all the faculty members. (LU0207)

Another leader reflected,

I am appreciative of their achievements. A pat on the back also keeps teachers motivated. (BU0308)

To sum up, data analysis shows that the academic leaders who were involved in the experimental group significantly improved their level of awareness after the intervention as compared with pre-experiment and control-group participants.

Discussion

The discussion focuses first on the overall positive impact of the intervention. Second, we corroborate the findings in relation to particular TL behaviors. The main objective of this study was to promote awareness levels in academic leaders of public universities. Analysis of qualitative data collected before the intervention helped developing a baseline of leaders' awareness level along six TL behaviors. The study reflected a definite increase in the awareness level of academic leaders at post-intervention level. The following findings were identified at the post-intervention level: (a) Overall, an increase was noted in all three awareness levels; (b) in addition, awareness was improved in relation to all six TL behaviors; (c) the increase was especially apparent in the proportion of application-level indicators of leaders' awareness. The findings of the current study also corroborated earlier available research conducted in the domain of leadership development. Several authors (Avolio et al., 2009; Bolden et al., 2012; DeRue & Myers, 2014; Gmelch, 2013) underlined in their research that leadership development had a strong impact on leaders in organizations. In addition, our study contributes to the literature by revealing a comparable impact in an academic setting. Our findings support the conclusion that leadership interventions can have a positive impact across a broad array of interventions, organization types, leadership styles, theories, levels of quality of research, and outcomes (King & Nesbit, 2015).

Flavell et al. (2008) also identified a positive increase in the awareness level of academic coordinators when they conducted a leadership development training program in Australian higher education.

Furthermore, our finding that—overall—more than a double amount of indicators related to TL behaviors per leader could be found (from 4.75 to 11.56) is in line with the results of the study of Avolio et al. (2009). They reported a 66% chance in the adoption of new leadership behavior. The size of observed changes is also in line with the findings of Abrell et al. (2011).

The results can also be linked to the design of this particular training. Likewise, Harris and Leberman (2010) reported positive leadership training results by stressing collaborative settings, fostering reflection on personal experiences, and exploring differences between leaders. In addition, the adoption of role modeling seemed to be successful in the intervention to attain comparable findings as Hargreaves and Fink (2006).

Next, there is a shortage of literature when it comes to studying a definite effect of intervention in relation to six TL behaviors. We observed a massive change in relation to all six transformational behaviors. To the best of our knowledge, no study explicitly focused on all six TL behaviors as identified by Podsakoff et al. (1990). So, it was difficult to compare the findings of six TL behaviors with earlier research, specifically in higher education. However, we tried to contrast our findings with the studies conducted in a corporate, military, or school setting. This helps discussing the impact on all six TL behaviors.

As to the articulation of a vision—a crucial topic at public universities—a clearly observable change was identified in leaders' awareness. The results of our study identified that academic leaders positively learned to involve their faculty/staff in setting and articulating the vision at their universities. This can be compared with the study results of Gmelch (2013), who found how leaders developed a vision together with the help of their team members and how vision could involve individual members to achieve their organizational goals. Our results are also in line with Martin et al. (2012), who evaluated a clinical leadership development program and could show improvements in the way leaders inspire a shared vision.

As to be an appropriate role model, Hargreaves and Fink (2006) also considered role modeling as an important component in their leadership training program, which is in accordance with our study design and findings, which are also in line with the study of Dopson et al. (2013) who conducted a leadership development training program in a medical field. They have considered role modeling as an important factor for medical mentors.

As to the third TL behavior "providing individualized support," we can compare our positive increase in awareness with the findings of Parrish (2015) who also identified an increase in behavior after the leadership development program. In this

leadership development program, he mainly focused on developing emotional intelligence comprising three key behaviors which enhanced through training: showing empathy, being inspiring, and guiding others.

Considering "fostering the acceptance of group goals," our results are aligned with the findings of Hannum and Martineau (2008) who reported better and concrete collaboration toward shared goals among team/group members after leadership training. Blackmore (2007) and De Vries et al. (2009) conducted an observation study and identified a positive improvement in leaders' awareness about working together to achieve group goals. Also Sosik et al. (2002) and McRoy and Gibbs (2009) identified how the awareness of leaders improved when focusing on teamwork in their organizations.

Focusing on high-performance expectations, our findings confirm awareness is an important attribute in leaders' development to help setting high expectations. Qualitative data analysis reflected a significant increase in post-intervention results as to this fifth behavior of TL, with a special emphasis on providing feedback as a critical training element. In their quasi-experimental study involving senior managers, Smither et al. (2003) concluded how managers—after training—believed to a stronger extent in multi-source feedback related to their performance; moreover, this contributed to apply the performance standards in the organization. They shared to a larger extent feedback with subordinates about their performance. Also De Vries et al. (2009) and Solansky (2010) focused on this component in leadership development and found how 360° feedback and mentoring were critical elements to attain their positive training outcomes.

As to the TL behavior "intellectual stimulation," our study findings can be linked to study findings of Leithwood et al. (2006). In their evaluation study of TL development programs, they reflected a higher level of intellectual stimulation and linked this intellectual motivation to their followers' performance.

Limitations

Although we could present positive results of the leadership development intervention, the present study is not without limitations. First, the intervention was only set up in two universities. Next to involving leaders from more universities, our focus could widen and involve participants from both the public and private universities. Earlier research pointed at differences in TL behaviors of leaders in the private and public universities (Zulfqar, Valcke, Devos, Shah et al., 2016). Also, leaders from more faculties within a single university could be involved, considering potential leadership differences between disciplines.

Second, in the present study, we have built solely on interview data to identify pre- and post-intervention differences in awareness levels of leaders. Although challenging, but

future research could also build on observation of actual leadership behaviors. Furthermore, adopting a mixed-method design could help developing a richer picture. Through data triangulation, quantitative data (e.g., from surveys) could enrich the qualitative studies. Next, the impact of the leadership development intervention was studied immediately after concluding the intervention. An additional but delayed measurement could help identifying the robustness of the changes related to the leadership intervention. The latter impact could also be studied by involving—next to the leaders—faculty members and analyzing their perspective on changes in their leaders.

Implications for theory, policy, and practice

The following implications can be derived from the findings of this study. *As to theory*, this study is mainly built on TL, as the six key behaviors of TL identified by Podsakoff et al. (1990) are the foundation of this study. Our study helped highlighting the actual nature of these behaviors and how these can be adopted leadership practices. This facilitates developing the theoretical basis and how it plays a role at a more operational level.

As to practice level, evidence-based leadership practices are not common in higher education contexts. This study helped to reduce this gap by implementing a leadership development intervention. Although it was challenging, we have successfully convinced leaders to participate in our leadership development intervention. In addition, our intervention was based on individual and group activities building on the idea that personal development should be set up in a constructive and collegial learning environment.

As to policy level, leadership development should be part of the policy document of universities, and sufficient funds and resources should be allocated to assure the leadership development.

Conclusion

Leadership development is not a priority in higher education, especially in a developing-country context like Pakistan. Our research results stress the potential of leadership training in an academic setting. This suggests leadership development should be considered as a stronger policy priority not only by the university management but also by Higher Education authorities to foster the organizational development of universities in the context of reforms and innovations.

Overall, in the present study, we could report about the positive outcomes of a leadership intervention. Compared with a baseline, we observed clear changes in all six behaviors that reflect TL. Especially promising was the fact that we observed a strong change in the "application" dimension of leaders' awareness.

Appendix A

Table A1. Framework for Training Activities.
Time: 2 hr 30 min (Each Session).

Activities	Time	Method
Recapitulation of the previous session	15 min	Individual input
Case study	10 min	Individual analysis/input (write on the color cards)
Case study	30 min	Joint Discussion (based on their input)
Lecture	30 min	Present the concepts of the particular behavior, through power point slides and relate the concept with case study problems
Group activities	40 min	Problem-based activities to discuss with group members and find a solution with the help of particular behavior (write their comments on the color cards)
Simulation	20 min	Assign roles to the participants and ask rest of the participants to note down their reflected behaviors (write on the color cards)
Video recapitulation	5 min	A recorded video clip played to summarize the session

Appendix B

Table B1. Coding Scheme for the Main and Sub-Categories of Awareness Indicators.

Remembering

They identify the . . .
- I always had the situation that create self-motivation.
- We set some standards.
- Your Intrinsic motivation stimulate you.

They recognize the . . .
- He should be clear about the vision and mission of the department.
- Concerned about the problems and issue of the faculty members.
- He should help his colleagues whenever they need his help.

They articulate . . .
- It is very important to give the picture of the future that you are the future of the department.
- Because through communication, you can resolve the issue.
- Sharing is very important.

Understanding

They discuss this . . .
- When a leader is constantly in touch with the team member and he is communicating and open to debate and argumentation . . .
- She should do what she expects from others, in this way he can set an example for others.
- Put yourself in another person's shoes and then see the situation of other person.

They exemplify this . . .
- By leaving the doors open for communication for everyone, so that they can come to you and share with you whatever they want.
- The punctuality of a leader forced the faculty members to reach in time and should be last to leave the department.
- Personal contact, regular contact, formal and informal meetings, and listen to them as much as you can.

They describe . . .
- To be a good role model, you have to practice what you preach.
- A leader has to be open to his colleagues and should adopt "WE" approach.
- A supportive relationship can only be developed if the leader has an intimacy with his colleagues.

Applying

They demonstrate . . .
- I never show a bossy attitude. I try to be friendly with them.
- And If I assign them any task definitely I involve myself and try to show them a model.
- I convey my expectations to my colleagues that this is what higher authorities expecting from me.

They develop . . .
- I tried to foster collaboration among those members who are not working in teams.
- I am going to encourage them to develop their potential.
- So we need to tell them that how they have to teach because we have to maintain the quality teaching. We need to check their behaviors in the classrooms.

They practice . . .
- I motivate them to work, to publish work together, prepare project, and give them relaxation in their work.
- I respect them, in return I also receive respect.
- I assigned the task to all the faculty members so that they should remain involved in their department and it is the responsibility of a leader.

Appendix C

Table C1. Pre- and Post-Intervention Results Based on the Number of Awareness Indicators and in Relation to Each TL Behavior.

Awareness indicators based on bloom's taxonomy	Articulating a vision	Appropriate role model	Providing individualized support	Fostering the acceptance of group goals	High-performance expectations	Intellectual stimulation	Total
University A							
Pre-experiment							
Remembering	1	3	1	1	1	3	10
Understanding	2	6	2	2	2	5	19
Applying	0	0	0	0	0	3	3
Total	3	9	3	3	3	11	32
Pre-control group							
Remembering	1	4	4	0	0	1	10
Understanding	2	2	4	3	0	3	14
Applying	0	0	1	1	0	0	2
Total	3	6	9	4	0	4	26
Post-experiment							
Remembering	11	1	2	1	5	2	22
Understanding	3	9	9	5	8	8	42
Applying	2	3	10	5	7	8	35
Total	16	13	21	11	20	18	99
University B							
Pre-experiment							
Remembering	8	2	11	5	6	9	41
Understanding	1	8	13	3	5	4	34
Applying	0	2	6	1	3	2	14
Total	9	12	30	9	14	15	89
Pre-control group							
Remembering	1	4	1	3	0	1	10
Understanding	2	3	6	0	1	4	16
Applying	0	0	2	1	0	0	3
Total	3	7	9	4	1	5	29
Post-experiment							
Remembering	25	11	13	6	12	8	75
Understanding	9	8	15	7	9	6	54
Applying	8	7	13	9	11	13	61
Total	42	26	41	22	32	27	190

Note. TL = transformational leadership.

Appendix D

Table D1. Pre- and Post-Intervention Results Based on the Number of Awareness Indicators Divided by the Number of Interviewed Leaders, in Relation to Each TL Behavior.

Groups	Awareness levels	Articulating a vision	Appropriate role model	Providing individualized support	Fostering the acceptance of group goals	High-performance expectations	Intellectual stimulation	Total
Pre-experiment and control group	Remembering	11 (0.30)	13 (0.35)	17 (0.45)	9 (0.24)	7 (0.18)	14 (0.37)	71 (1.91)
	Understanding	7 (0.18)	19 (0.51)	25 (0.67)	8 (0.21)	8 (0.21)	16 (0.43)	83 (2.24)
	Applying	0 (00)	2 (0.05)	9 (0.24)	3 (0.08)	3 (0.08)	5 (0.13)	22 (0.59)
	Total	18 / 37 = (0.48)	34 / 37 = (0.91)	51 / 37 = (1.37)	20 / 37 = (0.54)	18 / 37 = (0.48)	35 / 37 = (0.95)	176 / 37 = (4.75)
Post-experiment groups	Remembering	36 (1.44)	12 (0.48)	15 (0.6)	7 (0.28)	17 (0.68)	10 (0.4)	97 (3.88)
	Understanding	12 (0.48)	17 (0.68)	24 (0.96)	12 (0.48)	17 (0.68)	14 (0.56)	96 (3.84)
	Applying	10 (0.4)	10 (0.4)	23 (0.92)	14 (0.56)	18 (0.72)	21 (0.84)	96 (3.84)
	Total	58 / 25 = (2.32)	39 / 25 = (1.56)	62 / 25 = (2.48)	33 / 25 = (1.32)	52 / 25 = (2.08)	45 / 25 = (1.8)	289 / 25 = (11.56

Note. TL = transformational leadership.

Declaration of Conflicting Interests

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