Teacher-Educators as Policy Entrepreneurs - How Do Motivation, Innovative Work Behaviour, and Personality Profiles Relate to Policy Entrepreneurship Outcomes?

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Abstract
The role of policy entrepreneurs in shaping the process of policy implementation is well recognized. However, current research tends to focus more on the process of policy change, and less on the quality of the outcomes of such policy shaping. Individual traits like motivation and contextual factors are known to shape the actions of policy entrepreneurs, but how do these affect the outcomes of policy implementation? To address this, we study the response of 89 teacher-educators in 11 districts in a province in India to a policy of the National Curriculum Framework for Teacher Education to incorporate the experiences of teachers in the teacher education curriculum. The opportunity spotted was teacher-driven innovations in schools and the entrepreneurial response took the shape of two-day "Educational Innovation Fairs" conducted in 2016 in all the districts. These brought together about 464 innovative practices in schools to public fora which were visited by 4089 teachers. The practices were rated by the visiting teachers and the respective scores were allocated to teacher educators on the basis of their contribution. The specific question we seek to answer is, "Do teacher-educators' motivation, innovative work behaviour and personality factors affect the quality of the outcomes of their policy entrepreneurship?" The findings indicate a positive, but non-significant relationship between innovative work behaviour and conscientiousness. On the other hand, results indicated a negative, but non-significant relationship between motivation conceptualized through goal orientation and innovation score.

Keywords: policy entrepreneurs, multiple streams framework, policy implementation, personality profiles, innovative work behaviour, goal orientation

Introduction

Policy entrepreneurs have been seen as "significant agents of change" (Mackenzie, 2004, p. 369), with the kind of entrepreneurial work they do including, among other things, consensus-building, generating issues, creating and exploiting open "policy windows," influencing the definitions of policy issues, innovating in pursuit of policy implementation, and using their networks to achieve their goals (Baumgartner & Jones, 1993; Kingdon, 1995; Mintrom, 2000; Weissert, 1991; Mintrom & Vergari, 1998). Given the assumed "strong relation between entrepreneurial activities and personality profiles" in the policy literature (Timmermans, van der Heiden & Born, 2014, p.98), the role of their personalities while they engage in such activities has attracted some attention (Christopoulos, 2006; Kingdon, 2003; Roberts & King, 1992; Mintrom, 1997). At the same time, there is recognition of the increasing role that policy entrepreneurs play in policy implementation (Ridde, 2009; Saetren, 2016), since intended policy objectives may often be shaped in unintended directions by local-level interpretations. That is, recent research is also concerned with the outcomes of policy entrepreneurship. But how personality profiles of policy entrepreneurs are related to the outcomes they seek to achieve is a question that remains under-explored. In this paper, we draw on the experiences of a group of teacher-educators who linked teacher-driven innovations in the public system with official teacher development policy, to push for a greater recognition of innovation in the teacher education curriculum. The outcomes of their actions were a set of validated innovations displayed in a public exhibition and then converted into manuals for use by teacher-educators as well as educators. We first describe the theoretical framework that underpins this study. We then present details of the case that we draw upon, the "Educational Innovation Fair" (EI Fair), which sought to create a "policy window" by presenting teacher-driven innovations as an answer to the problem of low academic achievement and by enlisting the support of an official teacher-education policy and the political system. We then describe our methodology, before presenting our findings about the linkage between personality profiles and policy entrepreneurship outcomes. Finally, we end with a discussion of the implications for supporting policy entrepreneurship within a framework of educational change.

Outcomes of Policy Entrepreneurship and Personality Profiles

Much of the work on policy entrepreneurs and policy entrepreneurship over the last three decades has been influenced by the multiple streams framework (Kingdon, 1984). Though the focus of research was initially on the early stages of the policy cycle such as agenda setting or problem definition, in recent years the role of policy entrepreneurs in policy implementation has attracted attention since there is often a gap between the intended policy objectives and their local level interpretations (Ridde, 2009; Grinstein-Weiss, Edwards, Charles, & Wagner, 2009; Lee, 2015; Harmon, 1995; McLaughlin, 1987; Kornhaber, Barkauskas, Griffith, Sausner, & Mahfouz, 2017). For instance, Mele and Compagni (2010) presented the case of a policy entrepreneur engaging in implementing a smoking ban policy. Lee (2015) showed how the "third sector" in South Korea played the role of policy entrepreneur and implementer with regard to a policy regarding social enterprise. Grinstein-Weiss, Edwards, Charles and Wagner (2009)

studied the specific role of policy entrepreneurs in policy adoption and implementation. Thus, in line with Zahariadis (1999), Ridde (2009) and Zahariadis and Exadaktylos (2015), we assume that the multiple streams framework can be used to examine the implementation stage of the policy cycle, and that the coupling of the policy and problem streams is more significant during implementation (Ridde, 2004, p. 202)—the politics stream, though present, is only loosely coupled with the others; we will show later, when describing the EI Fair initiative, how the problem and politics streams and the policy and politics streams interacted at the earlier stages of agenda-setting and formulation, respectively. In this paper, we are concerned specifically with the outcomes of the coupling of problems and solutions during implementation.

Zahariadis and Exadaktylos (2015, p. 9) note that "implementation *success or failure* …. is difficult to define and measure." If the time-frame of the policy cycle is relatively long, it should be possible to examine outcomes such as equity versus efficiency, as explored by Ridde, 2004, 2009), or others such as accountability, redistribution, compliance, and so on (Zahariadis, 2008). With shorter timeframes, as in our case, it may be useful to look at the intended outputs, as recommended by Zahariadis and Exadaktylos (2015) and assess the quality of such outputs to capture the variation across the implementing units.

Given the importance attached in the multiple streams framework to entrepreneurial behavior in bringing together problems, solutions and politics when opportunities are open, the characteristics of the individuals who engage in such behavior have attracted scholarly attention. Christopoulos (2006) attributes the success of policy entrepreneurs to the convergence of four factors: behavioral traits, institutional factors, network position, and political capital. Behavioral traits, the individual qualities that are independent of structures or institutions, include "rhetorical ability, foresight, persistence, and good negotiating skills" (Kingdon, 2003). These individual qualities depend, for their expression, on the institutional environment. Mackenzie (2004) visualized the factors associated with successful policy entrepreneurs at two levels, the individual and the contextual. The individual level qualities include innovation and creativity, argumentation, persuasion, and remaining alert to opportunities. The contextual factors such as institutional environment, positional power, and political structure play a significant role in complementing the individual qualities (Zahariadis & Exadaktylos, 2015). Mackenzie (2004) clearly shows that the impact of policy entrepreneurs is mediated by environmental factors, and thus, while individual qualities are important, they are circumscribed by the context that regulates social action.

However, the role of personality profiles in influencing outcomes of policy entrepreneurship seems to have attracted little attention. Roberts and King (1992) assessed the personality profiles of public entrepreneurs using Loevinger Sentence Completion Test of Ego Development (SCT), the California Psychological Inventory (CPI) and the Myers-Briggs Type Indicator (MBTI). They defined public entrepreneurs as people who are involved in all three phases of innovation, namely, creation, design, and implementation of innovative ideas. They studied executive entrepreneurs and public entrepreneurs and showed that public entrepreneurs are also vulnerable to unethical

behaviors (Lewis, 1984; Ramamurti, 1986) while seeking to achieve their objectives. Both types of entrepreneur showed achievement orientation, change agency, managerial and leadership skills, and critical and analytical skills. However, public entrepreneurs were more respectful towards others and tolerant of others' views, and more collaborative when engaging with others. A more recent study by Timmermans, van der Heiden and Born (2014) developed an instrument to assess the personality profiles of policy entrepreneurs. The instrument seeks to compare the personality characteristics of policy entrepreneurs with policy professionals. They synthesized the Big Five model (McCrae & Costa, 1987; Goldberg, 1990, 1992) and the HEXACO personality model (Ashton & Lee, 2001) to assess nine constructs – aesthetic appreciation, inquisitiveness, creativity, unconventionality, extraversion, agreeableness, conscientiousness, emotional stability and openness to experience. They noted that policy entrepreneurs tended to show a higher inclination towards agreeableness, creativity, unconventionality, openness to experience, and transformational leadership. Timmermans et al. (2014, p. 96) describe their work as paving "the way for more comprehensive research into the relation between personality structure, contextual variables and entrepreneurial behavior and success" and as we describe later, we draw on their work for our methodological approach.

In sum, we draw on the extension made to the multiple streams framework to include implementation (Ridde, 2009), but rather than focus on a simple dichotomous outcome of success or failure, we seek to assess the quality of the outputs of policy entrepreneurship. The short timeframe of two years covered by the initiative reported in this paper makes this approach more appropriate (Zahariadis & Exadaktylos, 2015). Second, we relate these outputs to the personality profiles of policy entrepreneurs, since this is an under-addressed relationship in the literature. By doing this, we hope to build on the recommendation of Timmermans et al. (2016) to examine the linkages between personality structures and policy entrepreneurial success, as mediated by contextual factors.

Genesis of the Educational Innovation Fair

The Educational Innovation Fair (EI Fair) was an exercise carried out in the western Indian province of Gujarat by the province's Council of Educational Research and Training (CERT) and personnel drawn from its 26 sub-provincial colleges, called District Institutes of Education and Training (DIETs)[1] over a two-year period 2015-17. Before we describe the actual EI Fair, we present how the coupling of the problem and politics streams, and the policy and politics stream happened in the agenda-setting and formulation stages.

In developing countries such as India, with the province of Gujarat being no exception, the public schooling system's performance has been subject to criticism (see for instance,

[1] The mandate of the CERT covered teacher training and research in the approximately 33,000 government elementary schools (grades 1 to 8, age group 6 to 14) of the province. The DIET covered an administrative unit called the district; each district has approximately 1000 schools. The CERT, headed by a director, has about 30 academic staff. Each DIET is headed by a principal, and the 26 DIETs had about 400 academic staff.

ASER, 2016). The state has responded by introducing programs that seek to introduce innovations into the system; for instance, a national program, the *Sarva Shiksha Abhiyan* (Education for All), has sought to introduce a number of curricular and pedagogical innovations. However, such programs are constrained by the fact that "innovation is not an elemental context for the public sector" (Potts & Kastelle 2010, p. 124) and by the presence of a number of barriers to innovation—the structure of the public system, the fear of experimentation, the costs of mistakes, and the characteristics of the people in the public system (van Duivenboden & Thaens, 2008; Kirby, 2006; Birley, 2002; Ozcan & Reichstein, 2009). At the same time, there are many local teacher-driven innovations that are relevant responses to problems that teachers face in socio-educationally deprived contexts. A project of an academic institution, the Indian Institute of Management Ahmedabad (IIMA), had been studying these innovations, seeking to demonstrate that policy entrepreneurship which valorizes such innovations and creates a culture of innovation by promoting their use is a promising approach to educational reform (Chand, 2014). In February 2014, this project, in collaboration with CERT, organized a conference to honor 100 innovative teachers and exhibit their innovations. This conference, which was attended by the province's minister of Education and top bureaucrats, demonstrated that the problem of poor quality was being addressed by locally generated, teacher-driven innovative responses to highly contextual educational problems. The role of CERT, itself an organ of the government, and represented by its director, in linking the political concern about quality with the problem of poor achievement, set the stage for the work that followed to develop teacher-driven innovations as a possible solution to educational problems in difficult socio-economic contexts.

This work took the shape of formulating an approach that would appeal to the political and bureaucratic leadership as a feasible solution and attract financial resources from the state. At the same time, enlisting the support of the constituents of CERT was seen as an essential element of the approach. IIMA had, beginning in 2013, worked with two academic staff in each of the 26 DIETs helping them identify teacher-driven innovations and screen them for effectiveness (see Chand, 2014 for details). This group and the principals of the DIETs were mandated by the director of CERT to formulate the strategy. Since these academic staff were themselves engaged in teacher development (both pre-service as well as in-service training), the relevance of the National Curriculum Framework for Teacher Education (NCFTE) was apparent. This policy had been formulated in 2009 by the statutory body for teacher development, the National Council of Teacher Education, and noted that the teacher educator of the future would have to engage with a number of contextual developments which the future teacher is bound to deal with (NCTE, 2009, pp.76-77). The policy specifically called upon teacher-educators to incorporate relevant experiences of teachers—how they dealt with their socio-political contexts, their assumptions about children, knowledge and learning, and how they actually helped children construct knowledge—into the teacher education curriculum. Teacher-driven innovations provided a fortuitous fit with these prescriptions. In fact the NCFTE (NCFTE, 2009, p.69) also suggested that teachers could use a variety of methods, including "melas"—a word that in many Indian languages means 'fairs', to promote learning. Thus was born the idea of the EI Fair—an initiative that would identify

experiences that have addressed the issue of educational quality, document and validate them, and then convert them into teaching material. The director of CERT then took this proposal to the province's highest administrative decision-making authorities and after much negotiation, managed to receive an annual budgetary allocation of Indian Rupees 16.6 million (approximately USD 0.25 million). This was a minuscule fraction of the approximately USD 620 million that was allotted to the entire elementary education sector in the province, but it was a significant breakthrough since it indicated political commitment to the idea of valorizing teacher-driven innovations, and established a policy, the outcomes of which would now have to be reported to the provincial legislature. It was also the first time that such a policy was being implemented in the country. This coupling of the politics and solution streams now set the stage for the implementation of the EI Fairs.

Kingdon (1995, p.122) defined policy entrepreneurs as actors who "could be in or out of government, in elected or appointed positions, in interest groups or research organizations." Others (Roberts & King, 1992) have assumed them to be outsiders. Saertren (2016, p.73) in his "insider take" on the policy entrepreneur stresses the institutional perspective that becomes important when seeing policy entrepreneurs as insiders. In the case under discussion, the director of CERT, the principals of the DIETs and the group that was formed to link the NCFTE policy with teacher innovations and the political concern about educational outcomes were all insiders. Though the idea of teacher-driven innovations as a solution stream had been conceptualized by an academic institution, without the institutional-insider-knowledge that the CERT possessed, obtaining the necessary budgetary support and formalizing it into a policy stream would have been extremely difficult. That an insider group was coupling the problem-policy streams certainly helped in enlisting political support. In this paper, we treat the teacher-educator group which, through the EI Fair, worked for greater recognition of teacher-driven innovations in the public system, as the main policy-entrepreneur group, and see the director of CERT and the principals as having played crucial supportive roles. It is the motivation and the innovation potential of the teacher-educator group that will be related to the outputs generated—the innovations identified, displayed and peer-rated.

Implementation of EI Fairs

The first planning meeting of the director and the teacher-educator group, which comprised 52 staff of the DIETS, was held in September 2015, with the academic support being provided by IIMA. It was decided that each DIET would identify about 40 teachers for their innovative and problem-solving work, by drawing on the work of IIMA, calling for nominations, or word-of-mouth recommendations, and then hold a fair on its premises. A methodology to evaluate the innovations was evolved. A pilot in one district was conducted in December, 2015, and the final approach decided. This pilot served to couple the policy and problem streams, since the experience enabled the group to list the areas in which effective teacher experiences were sought: access to education; deficits in physical infrastructure that state schools suffer from; out-of-school conditions for equity; retention of children in school; quality of education; knowledge inclusion and building an

enabling environment. Second, each DIET constituted committees which included teachers to evaluate the innovations.

Once the process was completed, each DIET held its EI Fair for two days in February 2016. One teacher from each of the roughly 900 to 1000 schools in the district was invited to attend. The fair was basically an exhibition in which the teacher was given a stall to display their work and discuss it with the visiting teachers. Digital content could also be displayed if the teacher had a personal laptop. The visiting teachers had to evaluate all the innovations displayed in the exhibition. In addition to the teachers, local politicians and district-level educational bureaucrats attended the fair.

Based on the ratings given by the visiting teachers, the four innovations which were rated the best were presented at the provincial capital. A total of 108 innovations, including a few that were specially selected for their focus on the urban poor, were presented in March, 2016. This fair was inaugurated by the minister of Education and attended by senior provincial government officials, and served to recouple political concerns with the problem and policy streams. The fairs were well received in general. The material displayed was identified as teaching-learning material by many visiting teachers, not just for the DIETs but for schools as well. All the DIETs published books compiling the innovations from their districts. The entire exercise was repeated in 2017, but this time the province-level exhibition was held not in the capital city but in a remote town.

Within each DIET the group that was working on the initiative enlisted the help of a few other staff members to share the screening and validation of teacher innovations, and undertake the publication and organization of the exhibitions. The quality and quantity of the innovations are the result of the efforts put in by this group of staff. What the DIET and CERT leadership expected of them was a positive orientation to innovation, since the task had to do with selecting teacher-driven innovations.

Data and Methods

The EI Fair was conducted in all the 26 DIETs in the province in 2015-16 and 2016-17. Since 2015-16 was the first year and was a trial, we decided to use the data from the second round. The teams had remained the same in both years. The CERT had instructed the DIETs to obtain ratings of the innovations by the teachers who visited the fair, and provided a template for the purpose, according to which each innovation had to be rated on a score of 50 by all visiting teachers. However, some of the DIETs made some modifications to the scoring template because of reasons such as time pressure; for instance, in some places, given the number of people visiting, the DIETs asked the visitors to pick out only the best five. Eleven DIETs, however, followed the template, and these were selected for the analysis. In these 11 DIETs, the total number of people who carried out the work numbered 89, with each DIET's efforts spearheaded by a coordinator. The coordinator worked under the supervision of the principal of the DIET. Thus, in the 11 DIETs, 100 persons, 89 team members and 11 principals were involved in the activity.

Table 1 presents the number of innovations and the number of raters. In total there were 464 innovations rated by 4089 visitor teachers.

Table 1: Profile of innovations and raters

District Name (only code given)	Number of Innovations	Number of visiting teacher raters	Number of team members including coordinator
AMR	55	523	10
PBR	28	318	6
PTN	40	217	11
RJKT	31	150	18
AND	60	590	7
JMNGR	42	425	5
KTCH	48	554	9
MHSNA	42	301	7
VAD	54	318	5
SRT	14	60	3
BHV	50	633	8
Total	464	4089	89

Measures: Personality Profiles

In order to measure the personality profiles of the policy entrepreneurs we largely followed the questionnaire suggested by Timmermans, Heiden and Born (2014) who combined Big Five (McCrae and Costa, 1987; Goldberg, 1990, 1993) and HEXACO personality model (Ashton & Lee, 2001) to assess nine constructs – aesthetic appreciation, inquisitiveness, creativity, unconventionality, extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience. However, in our study, we focused on Big Five Personality Inventory (Goldberg, 1993) which covers four of these constructs – extraversion, agreeableness, conscientiousness, openness to experience, in addition to neuroticism. Since the focus of the present work was on innovation, we replaced neuroticism with "innovative work behavior" (IWB). This resulted in a 34-item instrument in which the ratings were on a five -point Likert scale ranging from strongly disagree (1) to strongly agree (5). The items for IWB were adapted from Janssen (2000), Scott and Bruce (1994), and Ramamoorthy, Flood, Slattery and Sardessai (2005). The response of these items ranged from never (1) to always (7).

In order to measure "goal orientation" in the work domain, we used a 13-item instrument developed by Vandewalle (1997) which has been shown to have good reliability in different countries. The items in this scale were rated on a Likert scale of 1 to 7, never to always. The data was collected through personal administration of the questionnaires to the team members, at the 11 DIETs. In addition, the principal of each DIET also rated the innovative work behavior of the team members, their subordinates. This was collected to check for social desirability bias.

Measures: Output

First, we asked each coordinator to rate the importance of the contribution of each team member to the overall output—the content as evidenced in the books that each DIET brought out, the process in terms of screening and evaluation of the innovations, and the organization of the fair. This rating was done on a scale of 1 to 10, with 10 indicating extremely high importance and 1 indicating very low importance. Second, the ratings of the innovations, given by the visiting teachers (see Table 1), was used as a measure of the overall output of the DIET. The justification for this was the teams at each DIET made a search for teacher-driven innovations, and the manner in which this search was done was assumed to influence the quality of the innovations unearthed. The CERT had indicated that the number was not important—it could be in the range of 30 to 60, but the focus had to be on innovativeness; the guidelines it gave emphasized three elements of innovativeness—novelty, evidence of outcomes, and assessment of effectiveness. Following from this, the visiting teacher raters were asked by the DIETs to rate the innovations on the quality of the innovation and relevance to their own practice. Thus, the ratings were expected to reflect the quality of the innovations and thus the performance of the DIET teams in identifying innovations that had both quality and relevance for the wider teacher community. The mean of the ratings for all the innovations thus constituted an innovation score for the DIET. It was then allocated to the team members on the basis of their contribution to the total effort as rated by the team coordinator.

Results and analysis

Structural Equation Modelling is used to test the three hypothesis:

H1: Goal orientation in work domain is positively correlated with innovation score of policy entrepreneurs.
H2: Innovative work behavior is positively correlated with innovation score of policy entrepreneurs.
H3: Conscientiousness is positively correlated with innovation score of policy entrepreneurs.

All the instruments showed significant reliability greater than 0.7 (Table 2).

Table 2: Reliability of instruments

Construct	Number of items	Cronbach's alpha
IWB	14	0.847
Goal Orientation	13	0.794
Big Five Personality Traits	34	0.789

The individual constructs showed a good fit for the measurement model with model fit indices, Table2, in the acceptable cut off range (Hu & Bentler, 1999). This indicates that the corresponding observed variables can be mapped on to latent variables satisfactorily.

Table 3: Model fit indices

	Chi-square	CMIN/DF	CFI	TLI	RMSEA
IWB	75.57	1.843	0.9	0.87	0.09
Goal Orientation	47.06	1.14	0.98	0.91	0.04
Conscientiousness	26.07	1.086	0.98	0.93	0.03

(Hu & Bentler, 1999)	RMSEA	CFI	TLI	SRMR
Acceptable cutoff	<0.08	>0.9		<0.10
Values considered good	<0.06	>0.95	>0.90	<0.08

Testing Hypothesis 1: relationship between goal orientation in work domain and innovation score

The model fit indices for the measurement model between goal orientation and innovation score are in acceptable range. This indicates that the goal orientation as latent variable and innovation score as observed variable are consistent with each other (Table 4).

Table 4: Measurement model indices (1)

	Chi-square	CMIN/DF	CFI	TLI	RMSEA
Goal orientation <-> Innovation Score	71.562	1.376	0.938	0.922	0.06

In the structural model, the regression weight from goal orientation to innovation score is negative, -0.023, and non-significant. This is against the hypothesized relationship between goal orientation and innovation score.

Testing Hypothesis 2: relationship between innovation work behavior and innovation score

While analyzing this hypothesis, the measurement model's fit indices were in acceptable range as per the values given by Hu & Bentler (1999). The regression weight from IWB to innovation score is positive, 0.07, but non-significant.

Table 5: Measurement model indices (2)

	Chi-square	CMIN/DF	CFI	TLI	RMSEA
IWB<-> Innovation Score	84.101	1.65	0.904	0.87	0.08

Testing Hypothesis 3: relationship between conscientiousness and innovation score
The model fit indices are presented below which are in acceptable range. This shows that latent variable, conscientiousness, and observed variable, innovation score are consistent with each other.

Table 6: Measurement model indices (3)

	Chi-square	**CMIN/DF**	**CFI**	**TLI**	**RMSEA**
Conscientiousness <-> Innovation Score	34.502	1.078	0.985	0.979	0.03

In the structural model, the regression weight of the path from conscientiousness to innovation score is 0.103 but non-significant. The summary of all the regression weights and corresponding p value is given in table 7.

Table 7

Hypothesis	**Independent variable**	**Dependent variable**	**Regression weight**	**p value**
H1	Goal orientation	Final innovation score	-0.023	0.86
H2	IWB	Final innovation score	0.075	0.52
H3	Conscientiousness	Final innovation score	0.103	0.34

Discussion and Conclusion

This paper was motivated by the under-explored relationship between the personality profiles of policy entrepreneurs and the quality of the outcomes they seek to achieve. A group of 89 teacher-educators were treated as policy entrepreneurs because they attempted to link teacher-driven innovations in the schools in their districts with official teacher development policy that prescribed a greater recognition of teacher experiences. This group was made up of 11 sub-groups, each of which identified a set of innovations that were displayed in a public exhibition and rated by teachers who visited the exhibition. We treated the mean ratings given by the visiting teachers as an indicator of the quality of the work identified by the sub-team and this score weighted by the importance of the sub-team member's contribution to the effort, as rated by the sub-team coordinator, gave the output score for the individual sub-team member. We then related this to the goal orientation in work domain, innovative work behavior and conscientiousness of the teacher-educators. All three relationships turned out to be non-significant, with the sign of the relationship between goal orientation and the output score being negative. In effect all three hypotheses were not supported. When the teacher-educators took up this challenge, their output was assessed not on the basis of their own direct work, but on the basis of the quality of the work of the teachers in their districts. In

other words, the output assessment of the teacher-educators was determined by the teachers' work. Further exploration of the data will hopefully reveal how valid is this reliance on the teachers' work to assess the work of those who mobilized the innovations. Yet, the nature of the task taken up was such that no other measure of the quality of the output of the mobilizational work that the teacher-educators did was possible. Second, even if there is a relationship between the personality traits and the output, getting a good measure of the quality of that output may be difficult in many situations where the teacher-educators have to rely on the outputs of other stakeholders such as teachers, as in this case, or school governance committee members or others. Alternative ways of relating the personality traits and the outcomes of policy entrepreneurship may to be explored in the future. In conclusion, we note that the relationship of personality traits with policy entrepreneurship outcomes, if one wants to go to beyond a characterization of such outcomes simplistically as success or failure, is an issue that needs creative resolution. In terms of a simple success/ failure dichotomy, the efforts of the teacher-educators would be, and have been appreciated, but a more nuanced conceptualization of the outcome proved elusive, reinforcing the warning note of Zahariadis and Exadaktylos (2015, p. 9) that "implementation *success or failure* …. is difficult to define and measure."

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