

The Impact of Undergraduate Background on Students' Performance in Interdisciplinary Studies: The Case of MA Students of Federal Studies, AAU^[1]

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Abstract

The interdisciplinary teaching-learning approach entails the integration of knowledge and skills from two or more disciplines in order to produce insights that cannot be met by a single discipline. Whether the study of federalism, in this perspective, suits to interdisciplinary studies relies on the integration of the various insights from contributing disciplinary bases comprising political science, law, history, economics, sociology and related fields altogether. In this line, this article examines factors impacting the academic achievement of postgraduate students of federal studies and thereby analyzes the relationship between academic achievement and undergraduate background of these students. Results from Chi-Square distribution test shows that the CGPAs of students of federal studies are not independent of their undergraduate background. The analysis of qualitative data gathered through interview and questionnaire reveals that a number of factors comprising the curriculum design, teaching methodology, team teaching and educational materials and facilities affects the performance of the students and the teaching-learning of federalism altogether. The paper, however, contends that the teaching-learning practice of federalism at Center for Federal Studies reveals more of multidisciplinary approach than interdisci-

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plinary perspective. It suggests the need for the integration or making coherent whole of the insights as a linchpin to meet the interdisciplinary teaching learning of federalism that would neither reward nor penalize students based on disciplinary backgrounds.

Key words: *Federalism, Interdisciplinary Studies, Teaching-Learning, Integrated Curriculum*

Introduction

Federalism as interdisciplinary studies takes different disciplinary bases - law, political science, economics, public administration, sociology and so on. This feature of federalism has suffered from lack of consensus on the unequivocal conception of federalism, and led scholars to concentrate on their disciplinary backgrounds to the study of federalism. Some authors define federalism in terms of constitutional and institutional aspects (Wheare, 1964). Others employ the political thought and the bargaining practices of party systems for the understanding of federalism (Riker, 1964). Still, some focus their analysis on the sociological aspect - human societies and territorial linkages as the base for the analysis of federalism (Livingston, 1952; Dikshit, 1971). These perspectives demonstrate that the study of federalism is not without disciplinary bases. It comprises more than one discipline and requires a team of teachers, researchers and students that can realize the teaching-learning of federalism. Interdisciplinary studies are emerging areas of studies in response to complex structural and behavioural systems (Newell, 2007). The ultimate aim of such field is to integrate and create a new insight (Ibid; Webb *et al.* 2011). Unlike interdisciplinary studies, multidisciplinary studies dwell on the teaching or learning of a given topic/phenomenon from different disciplinary perspective to have a broader contextual view (Repko 2007; 2011; Webb *et al.* 2011).

Federalism as interdisciplinary study was established as a response to resolve practical problems as well as the need to produce knowledge and skills for governing multiethnic societies like Ethiopia^[4]. Since the adoption of federalism in 1995, scholars and practitioners alike have shown an increasing focus on understanding federalism – stemming out of practical necessity than choice to purely advance knowledge. As part of this move, AAU has established Center for Federal Studies (CFS) in 2007/8. Up until 2013, the CFS has so far produced over 120 MA graduates and 23 students are now doing their PhD in federal studies. Since its inauguration, CFS has been teaching postgraduate students with various undergraduate backgrounds. The faculty members also have different academic backgrounds that apparently mirror the kind of disciplinary bases for the inter-

4 See, Syllabus of MA in Federal Studies, CFS, 2011.

disciplinary nature of federalism. The teaching and learning of federalism needs integration of knowledge and skills from two or more disciplines in order to produce insights that could have been impossible through single discipline. In this way, the study of federalism requires a team of teachers and students with various disciplinary backgrounds, and teaching and learning methods that suffice into interdisciplinary perspectives.

The purpose of this paper is to illuminate the interdisciplinary nature of federal studies and examine how students' undergraduate background impacts their academic achievement/performance in postgraduate study of federalism. It also assesses other factors beyond the students' disciplinary background. Towards this end, the article answers the following basic research questions: To what extent are academic achievements of students of federal studies dependent on their undergraduate background? What are the factors that affect the teaching and learning of federalism at CFS? What kind of interventions are needed to foster interdisciplinary and integrated pedagogy at the CFS?

For the purpose of empirical analysis, we employed both qualitative and quantitative research approaches. On the one hand, for seeking primary data, we used interview and questionnaire. Both the students and teachers at CFS were the target population. We conducted key informant interview with six academic staffs. The questionnaires were distributed to fifteen students of CFS. Based on the interview and questionnaire results, we identified the key factors beyond students' and teachers' disciplinary background that affect the teaching-learning of federalism as interdisciplinary studies. Besides, we took the concept of 'integration of insights' as a useful indicator of effective teaching and learning of interdisciplinary studies, in this case federalism. The data gathered through interview and questionnaires were analyzed qualitatively. On the other hand, we employed the Chi-Square distribution to test the extent to which academic performances of students of federal studies are dependent on their undergraduate backgrounds. In doing so, we utilized the students' cumulative grade point average (CGPA) scores and theses grades over the last five academic years (2009 to 2013).

The article has four sections and starts with the introduction section. The second section sets the theoretical and conceptual frameworks of the study. It discusses

the key concepts such as interdisciplinary studies, multidisciplinary studies and federalism. It also reveals whether federalism fits to interdisciplinary studies, and the factors affecting the teaching and learning of such fields. The third section dwells on the empirical analysis part of the article. Here, it unfolds whether academic achievement of postgraduate students of federal studies is dependent on their undergraduate backgrounds. The paper also assesses the key factors impacting the teaching learning of the interdisciplinary studies of federalism at CFS altogether. Finally, the last section provides concluding remarks as well as recommendations that can be considered as intervention areas for the CFS.

2. Theoretical and Conceptual Frameworks

2.1. Interdisciplinary Studies: What distinguishes it from Disciplines?

Before discussing what interdisciplinary studies are, this section describes what a discipline is. Etymologically, the term discipline originated from the Latin word *discipulus*, which means pupil, and *disciplina*, which means teaching” (Krishnan, 2009: 10). Its current meaning retained strong connection to this epistemological root particularly when preceded by an adjective ‘academic’. The term ‘academic discipline’ connotes the organization of learning and systematic production of knowledge. Academic discipline (here after discipline) has its own basic characteristics (Krishnan, 2009: 11). These are, first, any discipline has a specific object of study or inquiry. Second, disciplines have a body of accumulated specialist knowledge referring to their object of research, which would be specific to them. Third, disciplines have theories and concepts that can effectively organize the accumulated specialist knowledge. Fourth, disciplines use specific terminologies or a specific technical language adjusted to their research object. It also has a specific research method according to specific research requirements. And it must have some institutional manifestation in the form of subjects taught at universities or colleges, respective academic departments and professional associations connected to it. These are the means for its continuation. In a nutshell, disciplines have their own history, concepts, theories, and methods.

Unlike disciplines, interdisciplinary studies are emerging areas of studies in response to complex structural and behavioural systems (Newell, 2007). On the one hand, unlike full-fledged disciplines, the suffixing word “studies” denotes the fact that such fields lack their own theorization and specificity of methodologies (Douglas W. Vick cited in Krishnan 2009: 12). The word ‘studies’ is put in plural after interdisciplinary in order to reveal the “prospect of examining a broad issue or complex questions that require looking inside as many disciplinary boxes as necessary so as to identify those dots of knowledge that have some bearing on the issue or question under investigation” (Repko, 2011: 11). Repko (2011, 12-20) further unfolds three important meanings of the prefix ‘inter.’ First, ‘inter’ refers to ‘contested space’ and indicates that interdisciplinary fields examine issues, problems or questions that are the areas of two or more disciplines. Second, ‘inter’ stands for the action to be taken on ‘insights.’ It connotes the integration process in interdisciplinary studies wherein two or more disciplinary perspectives create a new insight into a particular issue or problem. Third, the meaning of ‘inter’ shows the result of ‘integration’ - creation of new insights from the contributing disciplines. As a whole, the prefix ‘inter’ makes interdisciplinary studies distinctive from and beyond the limits of any discipline. Hence, interdisciplinary studies are not a replica of disciplines but a ‘cognitive advancement’ or addition to knowledge. Moreover, the distinction between disciplines and interdisciplinary studies is clear in terms of what Repko notes - “disciplines are the means to the ultimate goal of interdisciplinary studies” (2011: 18) and disciplines are not the focus of the interdisciplinarians (Ibid).

Interdisciplinary studies “is a process of answering a question, solving a problem, or addressing a topic that is too broad or complex to be dealt with adequately by a single discipline, and draws on the disciplines with the goal of integrating their insights to construct a more comprehensive understanding” (Repko, 2011:16). This definition unveils that: one, interdisciplinary studies have a particular substantive focus, and extend beyond single disciplinary insight; two, interdisciplinary studies and interdisciplinary researches alike are characterized by an identifiable process or mode of inquiry which is drawn from the disciplines making integration as its goal; and three, disciplines provide insights about the substantive focus of interdisciplinary studies but the objective of the interdisciplinarity process is

pragmatic and focused on integration. Integration is the key feature of interdisciplinary studies which “involves a synthesis or balance of multiple perspectives to produce deeper understanding, balanced judgment, viable solution that creatively accommodates the different perspectives” (Golding, 2009:3)

Newell (2001) argues that interdisciplinary studies are justified only by complexity of system, particularly the complexity of structure and behaviour. It is this feature of interdisciplinary studies that differentiates it not only from the discipline but also from other ‘studies’ such as multidisciplinary studies. Unlike multidisciplinary studies, interdisciplinary studies are characterized by integration, synthesizing, balancing and accommodation of different perspective (Newell, 2007:2). Interdisciplinary studies are often confounded with multidisciplinary studies which intend to study two or more sub-system/facets which do not cohere, and integration is not an essential goal (Ibid). Multidisciplinary studies dwell on the teaching or learning of a given topic/phenomenon from different disciplinary perspective to have a broader contextual perspective, not to integrate and create a new insight (Webb *et al.* 2011: 5; Repko, 2007:12). Interdisciplinary studies aim at rendering encompassing and balanced solution to a complex problem; in contrast, multidisciplinary approach is confined to creating broader understanding through parallel teaching and learning from more than one discipline. In sum, multidisciplinary studies are subsumed under interdisciplinary studies and are a necessary but not a sufficient condition for interdisciplinarity.

2.2. Factors Impacting Interdisciplinary Teaching and Learning

Interdisciplinary learning and teaching require complicated tasks and processes due to the multiple perspectives that need to be integrated at different levels to meet successful interdisciplinarity (Golding, 2009; Krishnan, 2009). Consequently, several factors influence the process of interdisciplinary teaching and learning. These include curriculum design (what content should be thought), teaching method (how the contents should be taught), and values (what additional goals should be achieved through teaching interdisciplinary knowledge and skills) (Krishnan 2009: 42). Interdisciplinary studies develop either organically due to shared interests of different disciplinary scholars or they can be

deliberately created (Ibid). In both cases, the curriculum design, the composition and coordination of the teaching staff as well as the methodology of teaching and learning process need cautionary design, careful coordination and follow up (Golding 2009: 7; Repko 2011).

The design of curriculum and the course contents of interdisciplinary studies need to be based on a strong teaching-research nexus which reflects high quality disciplinary and interdisciplinary research (Repko, 2011; Golding, 2009). This makes for postgraduate interdisciplinary studies disciplinary foundation and depth become requirement because students are expected to draw their own disciplinary expertise to integrate with perspective from related disciplines and do interdisciplinary research. Taking this into account, the curriculum needs to be designed setting its disciplinary foundations for a given interdisciplinary area of studies in a way that “neither rewards nor penalizes students from any particular disciplinary background” (Golding, 2009: 26). The interdisciplinary curriculum also needs to have lucid objective and expectations. Particularly, the assessment mechanisms for the interdisciplinary studies should consider the following four assumptions or principles: one, the capacity of students to use knowledge rather than having or accumulating knowledge; two, use of knowledge informed by disciplinary expertise or otherwise; three, integration of the disciplinary views; and four, focus on purposeful ways/activities that lead to “cognitive advancements” such as a new insight or solution (Mansilla and Gardner Cited in Repko 2011: 23).

Team-teaching is regarded as significant factor influencing interdisciplinary studies (Golding 2007; Jones 2009). One of the challenges of teaching and learning interdisciplinary studies is that teachers/researchers of such field should endow the capacity of balancing, accommodating and integrating insights from various disciplinary bases (Golding, 2009:8). In this perspective, Golding (2009:7-9) identifies three steps worth attaining interdisciplinary teaching and learning. The first step is to develop a shared interdisciplinary vision for the subject which requires a great deal of ongoing dialogue amongst the teaching team. The second step is about the composition and practice of team teaching and how the team supports students to integrate perspectives into a new whole by coordinat-

ing multiple perspectives. The third step is related to conducting two lectures at a time: one, to present disciplinary expertise and the other, to offer interdisciplinary synthesis and integration. Thus, the establishment of the appropriate interdisciplinary teaching staff is a key in the delivery of interdisciplinary learning. However, team teaching for delivering interdisciplinary courses has been a challenging task. In this line, the problems range from problem of sharing of responsibilities, lack of sufficient time for collaborative work, lack of training in interdisciplinary group dynamics, team members territorial and status conflicts, to an inadequate funding (Haynes cited in Jones 2009: 76-77). Likewise, Szostak notes that “[m]ost faculty members within interdisciplinary programs generally identify themselves primarily in terms of a particular interdisciplinary theme or question, rather than with interdisciplinary itself” and new interdisciplinary teachers “lack both interest and expertise in interdisciplinary research practice” (Szostak 2007:23). .

Pedagogically, an interdisciplinary instructional approach is associated with active learning strategies and promoting higher order critical thinking skills (Chettiparamb, 2007: 33). It is concerned with fostering a sense of self-authorship and perspectives notion of knowledge that students can use to respond to complex questions, issues or problems (Chettiparamb, 2007: 32). It also involves the promotion of student’s interpersonal and intrapersonal learning (Ibid). Other factors influencing interdisciplinary learning and teaching are related to the rigidity of institutional structures in terms of grouping discipline, recruitment, and societal structure that demands well determined occupation. There are also psychological impediments that stem from disciplinary biases.

2.3. Federalism as Interdisciplinary Studies

Federalism: The Various Conceptions?

Scholars disagree on the precise definition of federalism. They use varied lenses and attach different meanings and connotations to it. This is because federalism takes different disciplinary bases and scholars mainly view it from their disciplinary perspectives. In this way, the first and oldest school represented by K.C Wheare (1964) denotes federalism as a result of constitutional and institutional

design. To this school, the constitutional and legal principles and variables related to it are the focus of comprehending federalism. The second school analyzes federalism as political thought wherein political bargaining and party systems matter (Riker 1964). The third school conceives federalism as a function of sociological factor in terms of accommodating a territorial-based social diversity (Livingston, 1956; Dikshit, 1971). Particularly, William Livingston puts the notion of ‘federal society’ - territorial-based social group seeking - as the key precondition for federalism. Likewise, Dikshit (1971:107) notes, “federalism lies not in its constitutional structure but in the geography of its society.”

The ethnic interpretation of nationhood by social groups, however, has added new dimensions to federal arrangements (Basta and Thomas, 2000; Coppieters, 2001). The logic of Ethno-federalism is based on a specific correspondence between the territorial distribution of ethnic populations and the territorial jurisdiction of federal units. The existence of regionally grouped diversities is the basic geographic premise of federalism in multiethnic societies (Dikshit, 1971). The motives behind enunciation of federalism are more context-specific. That is why Burgess (2006: 97-100) through what he calls “circumstantial causation”^[5] states that in some federal countries “political factors outweigh the socio-cultural and economic factors; in others the reverse is the case.” Thus, students of federalism should examine a combination of underlying factors and specific realities of history, geography, socio-cultural compositions, and economic, political and institutional dynamics to elucidate the complexities of a given federation.

The varied conceptions of federalism have made scholars to emphasize on what federalism basically constitutes than what federalism *per se* is. In this perspective, for some, federalism is a constitutional and territorial dispersion of power and resources among different government units (Elazar, 1987; Osaghae, 1990; Thorlakson, 2003) and a partnership among the territorial communities (Duchacek, 1975). It aims to address twin interests of shared rule (federal con-

5 For instance, Micheal Burgess argues for the notion of “circumstantial causation” that underscores the creation of federations. In his view, the comparative analysis of federalism and/or federal systems need to be studied by taking the underlying history, socio-cultural, economic and political contexts that brought federalism into the scene. See, Micheal Burgess, *Comparative Federalism: Theory and Practice*, Routledge: London and New York, 2006.

cerns) and self rule (concerned with self governance of the federating units). Castaldi and Umberto Morelli (2009:1) note that “federalism is a single word for the theory and practice of multi-level democratic government from the normative and descriptive standpoints”. It is about acknowledging that the world is complex and plural, increasingly ill-fitted for monist conceptions of the state, sovereignty, nation, identity, and others.

That is why scholars like Kincaid (2011: XXXiii) unfold what federalism constitutes than what it actually means:

Federalism is not an ideology but rather a set of principles rooted in such notions as voluntary cohabitation, self rule and shared rule, and diversity in unity. These principles which stand against both anarchy and tyranny, are, and can be, adopted to create a variety of modes of governance. There is no one best definition of federalism and one best model of federal modes of governance, nor is often federalism a panacea or utopian guarantee.

Kincaid (1995) pinpoints six values of federalism that need worth studying: peace, security, liberty, democracy, innovation, efficiency and equity. Erk (2006) on his part illustrates four dimensions for which the new study and research on federalism matters and these are: exercising democracy, accommodation of diversity/ethnic conflict management in divided societies, public policy making, and designing institutions.^[6]

At this juncture one may pose the question: Is federalism an interdisciplinary study that focuses on integration of knowledge and skills from disciplinary studies or multidisciplinary studies that is characterized by loose integration across disciplines? This leads us to the discussion of federalism as interdisciplinary studies seeking integrated pedagogy.

6 Jan Erk, 2006, Does federalism really matter, Review Article, *Comparative Politics*, Vol. 38, No. 4. Pp. 1-16.

2.4 The Interdisciplinary Studies of Federalism

The very fact that the study of federalism constitutes legal, political, economic, sociological and other perspectives reveals that federalism is not a mono-discipline and that it *is not without disciplinary base*. In this way, it comprises more than one discipline and requires a team of teachers, researchers and students that enrich the overall educational experiences^[7]. In this study, we contend that the teaching and learning of federalism needs interdisciplinary studies approach than a mere multidisciplinary studies. This is because federalism needs an inquiry which not only draws upon two or more disciplines like law, political science, history, economics, sociology, and so on but also centres on an ultimate synthesis/integration of insights from these disciplines^[8]. The study of federalism fits to an interdisciplinary studies because it has originated to resolve real world and complex problems. Federalism also needs comparative and peculiar knowledge and skills (Watts, 2008; Burgess, 2006; Kincaid, 2011).

The lack of consensus regarding the notion of federalism as well as the specificity of each of the federal systems put another burden on the pedagogy and integration of the underpinning insights into the study of federalism. Like any interdisciplinary studies^[9], federalism is not static. It is a work in progress - focus on changing circumstances and federalizing processes. One may argue that since federalism can be treated under each of the contributing disciplines, it will not be important to dwell on study of federalism as interdisciplinary studies. But the study of federalism under disciplinary fields reduces the complex abstraction of the study of federalism. The ultimate objective of studying federalism as interdisciplinary studies stems from the necessity of understanding the complex object of federalism in an integrated and coherent manner.^[10]

7 This feature is in line with IDS. See Jones, Casey (2009) "Interdisciplinary Approach - Advantages, Disadvantages, and the Future Benefits of Interdisciplinary Studies," *ESSAI*: Vol. 7, Article 26.

8 According to Jones, "synthesizing of discipline is an ultimate goal of interdisciplinary studies." See Jones, Casey (2009) "Interdisciplinary Approach - Advantages, Disadvantages, and the Future Benefits of Interdisciplinary Studies," *ESSAI*: Vol. 7, Article 26. P. 76.

9 An IDS is characterized by complex system and changing issues, problems and questions of inquiry. See Allen F. Repko, *Interdisciplinary Research: Process and Theory, Second Edition, Sage Publication, 2012*.

10 "All interdisciplinarity is, at root, concerned with the behaviour of complex systems." See Newell, W. H. A theory of interdisciplinary studies, *Issues in Integrative Studies, 2001, 19, 1-25*.

As interdisciplinary (otherwise integrative) studies^[11], federalism requires reflective learning-teaching.^[12] Newell (2001) emphasizes that the test of the interdisciplinarity is not embedded in the distance between the interdisciplinary studies and each of the contributing disciplines but whether the interdisciplinary studies is fundamentally multifaceted or complex. The focus is on the problem, issue and/or intellectual question that each discipline aims to address. Disciplines are simply a means to this end - synthesis or integration of knowledge and skills. As interdisciplinary studies, federalism draws insights from relevant disciplines and tries to integrate these insights into a more comprehensive understanding. The study of federalism, we argue, happens when scholars with some disciplinary bases go beyond establishing a common meeting place to develop a new method and theory crafted to transcend their disciplinary perspectives.

As interdisciplinary studies, federalism is about questions, problems and issues in the real governance of diverse societies. These cannot be addressed by a single disciplinary perspective. Interdisciplinarity makes sense of various explanations of the same phenomenon. The integration of the key insights from the contributing disciplines is necessary, and federalism is more than a mix of various fields such as law, political sciences, sociology and so on^[13]. If federalism is studied in a multidisciplinary approach, it will not bring significant difference to the way federalism is being taught as one of the issues under contributing disciplinary fields.

3. **Factors Impacting the Interdisciplinary Studies of Federalism**

This section dwells on practical assessments of whether the teaching learning of federalism at the Center for Federal Studies (CFS) of Addis Ababa University (AAU) is consistent with interdisciplinary nature of the subject. In doing so, we utilized performance of students of federal studies and how the knowledge and insights from various disciplinary bases are integrated/synthesized. First, we assessed the undergraduate background of students of federal studies over the

11 See, Dawn Youngblood, *Interdisciplinary Studies and the Bridging Disciplines: A Matter of Process* *Journal of Research Practice* Volume 3, Issue 2, Article M18, 2007

12 Interdisciplinary studies are reflective by approach.

13 Multidisciplinary study is about “the teaching of topics from more than one discipline in parallel to the other.” Unlike IDS, MDS do not engage in integration and its facets need not cohere. See Casey, “Interdisciplinary Approach - Advantages, Disadvantages, and the Future Benefits of Interdisciplinary Studies,” *ESSAI: 2009*, Vol. 7, Article 26, p. 76;

last academic years since the commencement of the CFS in 2007. Second, we used the students' CGPA and thesis grades to illustrate the association between students' academic performance and their undergraduate backgrounds. Third, we identified and discussed other factors -beyond disciplinary factors - impacting the performance and the teaching and learning processes of federalism altogether.

1.1. Undergraduate Background and Academic Achievement in Federalism

The informants^[14] organized for this study note that there have been practices of pulling federalism to their disciplinary backgrounds than bringing the kinds of integration needed for interdisciplinary approaches. This practice of drawing disciplinary line shows lack of adequate integration of the interdisciplinary pedagogy of federalism. According to these informants, one can understand the lack of integration of disciplinary insights by comparing the research papers produced in federal studies with disciplinary fields like political science. One could hardly separate these research papers.

The CFS has been employing the mechanisms of entrance exam, aptitude test and relevant/related undergraduate background of students for admitting them into the postgraduate study of federalism.^[15] This indicates an effort to make federalism pedagogically insightful. In this case, the study by Golding (2009:23) confirms that if the qualification of students in their undergraduate is not specified, it will create pedagogically doubtful interdisciplinary teaching and learning. In practice at CFS, as the informants note, students who join the postgraduate programme of federal studies hold diverse undergraduate backgrounds, as shown in the Table 1 below. The background of the students demonstrates a good mix of disciplinary background and mirrors interdisciplinary instruction.

14 These informants include fifteen (15) students and six(6) instructors at the Center for Federal Studies (CFS) 2014

15 Informant: chairperson of CFS, July 2014

Undergraduate Background	No of students Graduated per Year					Total	%
	2009	2010	2011	2012	2013		
Law	8	2	5	28	5	48	38.71
History	8	13	7	2	4	34	27.42
PSIR	4	5	2	1	2	14	11.29
Education	-	1	3	1	3	8	6.45
Geography	3	1	1	-	1	6	4.85
Economics/mgmt	2	1	1	2	-	5	4.03
Civics	-	-	3	-	2	5	4.03
Sociology/Anthropology	-	-	-	2	-	2	1.61
Natural science (Was this a mistake?)	-	1	-	-	1	2	1.61
Total	25	24	22	34	19	124	100

Table 1: Undergraduate Backgrounds of MA Students of Federal Studies (2009 to 2013)

Source: Compiled from the CFS Students' Performance Records June 2014
Source: Compiled from the CFS Students' Performance Records (2009 to 2013)
June 2014

As Table 1 and Figure 1 above show, the CFS receives students from various undergraduate backgrounds. Since the establishment of the Center and over the last five years (2009 to 2013), majority of the students (77.42%) admitted were from law, history and political science and international relations (PSIR). Taking the last five academic years, students with LLB background accounted for about 40% of the MA graduates in Federal Studies.

Furthermore, the average score of all the students is 3.49 whereas those of students with law and political sciences undergraduate background are 3.56 and 3.58, respectively, obviously above the average score of all the students. In contrast, the average scores of students with History and other undergraduate backgrounds are 3.37 and 3.45 respectively - below the average score of the students.

Table 2: Undergraduate Background of MA Students of Federal Studies with Their CGPAs (2009 to 2013)

Undergraduate Background	CGPA Scores (2009 to 2013)				Total	%
	3.0-3.25	3.25-3.5	3.5-3.75	3.75-4.0		
Law	7	10	18	13	48	38.71
History	13	11	7	3	34	27.42
PSIR	1	3	7	3	14	11.29
Education	2	2	3	1	8	6.45
Geography	1	1	2	2	6	4.85
Economics/mgmt	1	2	2	-	5	4.03
Civics	2	3	-	-	5	4.03
Sociology/Anthropology	1	1	-	-	2	1.61
Natural science	-	-	1	1	2	1.61
Total	28	33	40	23	124	100

Source: Compiled from the CFS Students' Performance Records (2009 to 2013) June 2014

Based on the above observed records, we used Chi-square distribution(x^2) to test whether academic achievements of students of federal studies is independent of their undergraduate backgrounds. In doing so, we have used the contingency table^[16] as follows:

Table 3: Contingency Table (test of independence between CGPA score and Undergraduate Background)

Undergraduate Background	CGPA Scores		Total
	3.00-3.49	3.50-4.00	
Law	17	31	48
Political Science	4	10	14
History	24	10	34
Others	16	12	28
Total	61	63	124

16 Table drawn using sample data for the x^2 test independence.

Solution:

1. Ho: Academic achievement of students of federal studies is independent of their undergraduate background.
2. Ha: Students' undergraduate background and their postgraduate academic achievements are not independent of each other.

$$X^2 =$$

Decision Rule: Reject Ho if calculated X^2 value is greater than X^2 critical at 5% significance level.

$$\alpha = 0.05$$

$v = (R-1)(C-1)$ where R is the number of rows and C is number of columns

$$v = (4-1)(2-1)$$

$$v = 3$$

$$X^2_{\alpha, v} = X^2_{0.05, 3} = 7.81$$

Reject Ho if sample X^2 is greater than 7.81.

Table 4: Sample X^2 table

f_0	f_e	$f_0 - f_e$	$(f_0 - f_e)^2$	$(f_0 - f_e)^2 / f_e$
17	24	-7	49	2.04
4	7	-3	9	1.30
24	17	7	49	2.88
16	14	2	4	0.30
31	24	7	49	2.04
10	7	3	9	1.30
10	17	-7	49	2.88
12	14	-2	4	0.30
				13.04

Where: f_0 is observed frequency and f_e is expected frequency

Solution: X^2 calculated is 13.04 but X^2 critical at 5% significance level is 7.81. The null hypothesis (H_0) is rejected because 13.04 is greater than 7.81. This, therefore, accepts the alternative hypothesis i.e. Undergraduate background of students of federal studies and their postgraduate academic achievement are not independent of each other.^[17]

This test has led us to further analyze the academic background of students along with their theses grades.

Table 5: Undergraduate Background Versus Theses Grades of MA Students of Federal Studies (2009 to 2013)

Undergraduate Background	Thesis Grade				Total	%
	Excellent	Very Good	Good	Satisfactory		
Law	6	28	14		48	38.71
History	7	17	8	2	34	27.42
PSIR	8	4	2	-	14	11.29
Education	0	7	1	-	8	6.45
Geography	2	3	-	1	6	4.85
Economics/mgmt	1	4	-	-	5	4.03
Civics	-	3	2	-	5	4.03
Sociology		-		1	2	1.61
-		1				
Natural science	1	1	-	-	2	1.61
	25	67	28	4	124	100

17 If one looks into the CGPA of students from natural science background, though they were few in number over the last five years, they scored above 3.5. The table portrays that there could not be direct association between the students' undergraduate background and their CGPA or overall performance in federal studies. The informants organized for the same study also concurred that it would be misleading to claim direct association between students' performances and their disciplinary backgrounds - inasmuch as the reality at CFS denotes the fact that students from outside law, PSIR or other social science background have the capacity to perform at least similarly with those with closer disciplinary background (Informants view, June 2014)

Source: Computed from the CFS Students Theses Records (2009-2013)
June 2014

The table above shows that from 2009 to 2013, 25 students (about 20% of the total) scored excellent in their theses. Of these, eight (out of fourteen) were with PSIR background while six (out of forty eight) were with law background. No student from these backgrounds scored satisfactory - the lowest grade. Thus, it appears that students with undergraduate background in law, political science and history have performed well in their thesis projects than the rest. Though students who join the field of federalism have diverse disciplinary backgrounds, our informants indicated that those who have law or political science background have a comparative advantage over those with other background. They explained the phenomenon based on other factors beyond undergraduate background as discussed in the subsequent sections.

1.2. Curriculum Design and Integrated Pedagogy

As it is captured under section two, federalism is not a MDS. In terms of curriculum design and teaching-learning practices of the discipline, the CFS is considerate of different perspectives and strives to integrate insights than merely merging the various disciplines. The other factor that has a significant bearing on the teaching-learning of federalism and on the students' performance is whether the curriculum is designed in an integrated manner. To assess the effect of this factor, we used the views of key informants who have partaken in the design of curriculum of federal studies. The informants noted that the course design and the contents consider a mix of perspectives to the scholarship of federalism so as to integrate insights than merely merging the various disciplines.

The convincing view is that effective and integrated teaching of federalism starts from how the curriculum is designed, what disciplinary insights underpin the subject and who prepared the curriculum (the expertise they have). In this line, the responses of our informants can be categorized into two. Some of them argued that the curriculum for federal studies fits to an interdisciplinary approach while others contended that the contents considered focus on law and political

science perspective of federalism^[18]. This was because those who participated in the design of the curriculum were from these backgrounds.

Moreover, viewed in terms of students' responses,^[19] the approaches of studying federalism at CFS mirror more of legalistic perspective and this was because of the constitutional base required for the study of federalism and also because most of the teaching staff have law background in their education. However, the lecturers' responses^[20] affirmed that, although the teaching-learning practices at CFS are largely influenced by law or political science background of the instructors, the syllabus reflects the inclusion of several other disciplines. This means a number of scholars with academic and research background of law, political science, history, economics, public administration, and others participated in the preparation of the Syllabus. Law and political science might serve as disciplinary bases of federalism but do not fully give answers to the issues, questions, and problems that federal studies seek to answer through integrated insights. Consequently, the issue of integration in the designing of curriculum and practice of teaching-learning requires consideration of the different disciplines making up the syllabus.

1.3. Team Teaching

The CFS often practices team teaching of federalism. Nonetheless, the teaching practice reflects more of multidisciplinary approach to the study of federalism than interdisciplinary approach. A number of factors including teachers' lack of experience in interdisciplinary pedagogy, lack of interdisciplinary experts in the Center/University, and lack of sufficient time for collaboration^[21] and coordination have constrained integration which is an ultimate goal of interdisciplinary studies. This problem has been reflected through overlapping roles of instructors, delivering courses on part time basis, and focusing on disciplinary traditions of pedagogy.

18 Interview with senior academic staff of the Center, and one Associate Professor engaged in the curriculum design, May, 14/2015.

19 Students' Responses

20 Interview with academic staff, May 16, 2014

21 The time allotted for delivery of one course is one month, and this does not allow for effective team preparation and collaboration for offering the same course in an integrated manner.

As the table below shows, CFS has sixteen faculty members - thirteen full-timers and three adjunct employees. Eight out of the sixteen are currently doing their PhDs and five of them are pursuing their doctoral researches in federal studies.

Table 6: Educational Background and Current Degrees Held by Academic Staffs at CFS

Educational Background			Current Educational Status		Total
Field of Studies	First Degree	Masters	PhD	PhD Candidate	
Law	6	5	4	-	16
History	5	1	1	-	
PSIR	2	-	-	-	
Anthropology	-	1	1	-	
Geography	1	-	-	-	
Economics	1	1	1	-	
Philosophy	1	-	-	-	
Federal Studies	-	7	1	5	
Development Studies	-	2	-	2	
Human Rights	-	-	-	1	
Biology	1	-	-	-	
			8	8	

Source: Compiled from CFS's Teaching Staff Documents, October, 2015

As the above table shows, the CFS has staff with diverse composition of academic background and this manifests the interdisciplinary nature of federalism. One of the informants from among the academic staff says that the Center is in the 'state of transition and a fully integrated studies of federalism' is yet to be furnished^[22]. Since eight of the sixteen faculty members are engaged in their PhD studies and are in the process of writing their dissertations, they are not fully engage in the teaching-learning of postgraduate students. This has its own

22 Interview, May 17, 2015

impact on teacher-student interaction and impinges on the implementation of interdisciplinary activities that presume high integration, discussion and dialogue in the teaching-learning environment. Moreover, due to active engagement of instructors from only few disciplinary backgrounds together with their disciplinary bias which is to be overcome yet,^[23] in the past five years students with law background have benefited more than those from other disciplinary backgrounds^[24]. However, the Center has a promising prospect for interdisciplinary studies in the sense that all its academic staff members who are not PhD holders are attending their doctoral programmes. Of the total eight candidates, five are doing their PhDs in federal studies.

The fact of being interdisciplinary makes federalism more of learner-centred. In this line, the student respondents confirmed that the study of federalism is suitable for students' active participation in the learning processes because the kind of issues, problems and questions that federalism dwells on necessitates student-centred approach. Besides, the diverse background of the students compels instructors to hear the former's view. Despite this, not all instructors employ learner-centred approach^[25]. Thus, the challenge observed in team-teaching is not beyond assigning a team of instructors but the actual problem lies in creating integrated insights and uniformly applying interdisciplinary pedagogy. Our experience as students and member of the teaching staff at CFS also tells the same story.

1.4. Educational Materials and Facilities

The other factor that influences performance in interdisciplinary studies is related to teaching materials and teaching staff. The Lack of comprehensive modular textbooks can be noted here. Although the modular system in terms of timetable and sequence of courses is in place, the necessary materials required to materialize the system are yet to come. Consequently, both teachers and students lack clear guide regarding the content and scope of the courses they dwell on. In this

23 The methodology of interdisciplinary studies of federalism assumes more or less similar pedagogy with the way teachers have been trained in their disciplinary backgrounds. In this sense, the way teachers were trained in their disciplinary studies appears to work for interdisciplinary instruction. But, this method is not often designed taking into account active learning method which is an important way to create common language and integrated insights in the students.

24 Responses of some teachers and students

25 Students' Response

regard, the responses of our informants can be divided into two. Some argue that modular learning by itself is considered as problematic for internalization of knowledge. Because students are required to intensively study one course at a time in the modular system, the short period of time by itself is a barrier leaving aside other practical problems. On the other hand, some of our informants have no doubt on the significance of modular learning but they raise several practical problems. This group of informants argue that much of the problem of modular learning emanates from lack of adequate preparation on the part of both teachers and students, not from the nature of modular learning per se. In the modular practices, time allocation and management matters. At CFS, there has been mismanagement of time i.e. instructors did not finish the modular course within the specified time period. This in turn created a burden on the students' time as well as knowledge internalization because they had to begin the next course without finishing the earlier one. In this regard, one of the informants in this action research mentioned that:

In actual practice, there has been overlapping of delivery of two courses in a month. Though it is said to be modular, some instructors did not finish both the contents as well as the assessments of the course within the allotted time. Consequently, another course began while the preceding one was underway and this contributed to the ineffectiveness of modular learning.^[26]

Both the instructors and the students had no standard guide for the course and this was a barrier to effective teaching-learning. Other factors also have their own bearing on the performance of students in the Center. Though CFS has a centre for documentation and library, the available space is very small to serve as a reading room for students.

Furthermore, many of our informants said that performance of students is a function of individual capacity than of undergraduate background. For example, the

fact that two students from natural science background performed well in federal studies denotes that an interdisciplinary study of federalism is a function of students' capacity/commitment, interest, communication, language and writing skills than of undergraduate background. Apart from this, practical work experiences related to federalism-related areas could also matter. Thus, students' language, communication and reading skills can be taken as contributing factors to their performance in federal studies.

3. Conclusion and Recommendation

The purpose of this research was to empirically examine the impact of students' disciplinary background on their performance in interdisciplinary federal studies. Over the last five years, 2009 to 2013, MA graduates of CFS have come from various disciplinary backgrounds like law, history, political science and international relations, economics, sociology, geography, journalism, language studies, biology and mathematics. Viewed from the students' Theses grades, it was not possible to clearly establish an association between performance and undergraduate disciplinary background. The Chi-square distribution test, however, revealed that CGPAs of postgraduate students of federal studies are not independent of their undergraduate backgrounds, and the study found out that students from law and political science backgrounds have some comparative advantages.

On the one hand, the way the curriculum was designed and the content of the courses are taught has taken much from the contributing fields like law and PSIR. On the other hand, most of the teachers who actually partake in the teaching of federalism at CFS are either lawyers or political scientists by training. Moreover, the teaching practice of interdisciplinary federal studies at CFS reveals more of multidisciplinary approach than studying federalism as interdisciplinary studies in its proper sense. This is because elimination of disciplinary bias and integration or making a coherent whole of the insights realizes the interdisciplinary teaching and learning of federalism, which is not fully achieved yet.

Based on the statistical test we used, we found that students' CGPAs and their disciplinary background are not independent. In addition, other factors influ-

enced the students' performances and the overall teaching-learning of federalism at CFS. These encompass the nature of curriculum design, the team of teachers who actually partake in teaching federalism, educational materials (modular textbooks) as well as individual student's capacity in communication, language, critical thinking and writing skills. In order to improve students' performances and meet the interdisciplinary teaching-learning of federalism, the study suggests the following doable measures of intervention.

I. Comprehend federalism as interdisciplinary studies than multi-disciplinary. Since federalism is interdisciplinary, teachers and students of federalism need to be inter-disciplinarians. Unlike the traditional disciplinary pedagogy, interdisciplinary studies need integrated pedagogy. In this line, the Center needs to deliver trainings on the interdisciplinary studies pedagogy for both its full and part-time academic staffs. Federalism has pedagogical opportunity in so far as it presents a high degree of integrative study and learner-centred approach than disciplinary studies. Thus, training in the areas of integrated pedagogy would help students and teachers to have coherent/integrated insights for resolving complex topics/problems.

II. The Center has to either put in place some disciplinary backgrounds as requirement for admission or it needs to deliver bridging courses for students coming from distant disciplinary backgrounds.

III. There is a need to prepare modular textbooks in so far as there is modular system, allot sufficient time for allowing internalization of the interdisciplinary learning of federalism.

IV. The CFS need to establish adequate supportive staff like librarians. There is a need to create well furnished and smart documentation centre and class rooms in order to bring about conducive teaching-learning environment.

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