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The Relationship between School Geography and Academic Geography: Experiences of Sri Lanka

Nimal K. Dangalle
Emeritus Professor, University of Kelaniya, Sri Lanka
dangalle1946@yahoo.co.uk

Professor Dangalle graduated from the University of Ceylon, Peradeniya, in 1968 and in the following year joined the then Vidyalankara University of Ceylon (University of Kelaniya) as a Probationary Assistant Lecturer in Geography. Later, he became the Chair Professor of Geography and retired from the service in 2014. During his tenure he has been the Head of Department for several periods and was Dean of the Faculty of Graduate Studies. Professor Dangalle has a large number of papers published both in overseas and local journals and has written four books. He was instrumental in introducing the Development Studies Degree programme in the Department of Geography, a popular programme among students today. Apart from his university service he has worked with the National Institute of Education, Department of Educational Publications, and the Department of Examinations of the Government of Sri Lanka. During his university career he has been involved in the quality assurance programme of the universities since its inception. Lately, he has shown much interest in geography education both in schools and universities.

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Dangalle, N. K.
University of Kelaniya,
Sri Lanka
dangalle1946@yahoo.co.uk

Abstract

The relationship between school geography and academic geography has been an area of interest of increasing importance among geographers. The present study based on an online survey involving school geography teachers as well as academic geographers in Sri Lanka, reveals that the relationship between them has been dominated by the desire to obtain and provide substantive knowledge. This has been mainly due to the highly competitive nature of the government-conducted Advanced Level Examination which selects the entrants to the university. The lack of attention to disciplinary knowledge, however, has deprived students of an opportunity to be able to think geographically. This has adversely affected not only the image of geography as a discipline in the school curriculum but also the resourcefulness and employability of the school leavers as well as the geography graduates. The root cause of this state of affairs lies with academic geography mainly due to the compartmentalized and fragmented nature of the undergraduate education. The credit-based course unit system of teaching in universities has contributed to the horizontal disintegration of the discipline.

***Keywords**: Disciplinary knowledge, factual knowledge, fragmentation, course unit system, academic geography, school geography*

1. Introduction

The relationship between school geography and academic geography has been an area of interest of increasing importance among geographers who are concerned especially about the place of geography in the school curriculum and, the future of the discipline of geography, in general. In most of their studies, it has been pointed out that there is a chasm, gap, decoupling, divide or problematic relationship between the two sectors (Goudie, 1993; Bonnett, 2003; Stannard, 2003; Hill and Jones, 2010; Rawding, 2010; Butt, 2019; Rawling, 2020). Some of them have even gone the length to point out that "academic geographers seem to have retreated from engagement with school geography for more insidious reasons" (Stannard, 2003, p.318). They are of the view that the absence of ties between the two "makes it difficult to foster sustained and inclusive dialogues on curricular change, teaching practices, and disciplinary developments" (Jeffrey, 2003, p.202). It is cautioned that such a disconnection between academic geography and the school curriculum could harm the school children's academic performance and their desire to pursue a degree in geography (Butt, 2019). As has been pointed out, a link between the two sectors is important since school geography is a medium through which academic geographers could communicate more widely and engage more actively in the wider world (Stannard, 2003).

The aim of this paper is to investigate the situation with regard to the relationship between school geography and academic geography in Sri Lanka. It is pursued within a context where the subject of geography in the school curriculum in Sri Lanka is susceptible to various interventions and misplacements raising doubts among its practitioners of their subject's position in school education. Although the importance and relevance of geography are stressed, curriculum planners have failed to house it in due place in the school curriculum (Katupotha, 2007; Dharmasiri, 2015). Further, a question often raised by administrators is 'what can geography students do after they finish their school education?'. Such underestimations, however, have not been limited only to Sri Lanka but have also been seen in countries like the United Kingdom (Lambert, 2013; Rawling, 2020).

Over the course of our lifetime, all of us have been affected, in varying degrees, by a range of interconnected economic, social, cultural, political and technological changes. The success of our lives has been largely determined by our capacity to understand and adapt ourselves to those transformations. Compared to the 20th century, however, the world is changing at a much faster rate and there is a growing need for preparing future citizens not only to face the world successfully but also to contribute to making the world sustainable. The role of education is to prepare young people and enable them to actively participate in all aspects of life in the world of tomorrow. In fact, they will have a relatively shorter period of time to understand the dynamics of the future world and, therefore, educators are charged with a grave responsibility to grasp the world correctly and make the right decisions in imparting their knowledge to young people. As Toffler (1974) made it clear, "all education springs from images of the future and all education creates images of the future. Thus, all education, whether so intended or not, is preparation for the future" (p 13). In fact, geography is well equipped to produce citizens who will be able to conceptualise and contextualise future realities at different and interlocking scales. Although, undervalued in many instances (Solem 2011; Frazier & Wikle 2017; Jones and Luna 2019; Jones 2023), the

discipline of geography armed with a host of key concepts is in a position to produce students with powerful knowledge who will be able to understand, explain and suggest solutions to many contemporary issues (Maude, 2020). In this context, it would be of relevance to explore how a dynamic and continuing relationship between academic geography and school geography could contribute to making school geography a subject that produces such students with a futuristic outlook.

1.1 School geography and academic geography in Sri Lanka

At present, the duration of school education in Sri Lanka spans over a period of thirteen years. Starting schooling at age five, pupils progress through four stages (Table 1).

Table 1. Structure of School Education in Sri Lanka

School Stage	Grades	No. of Years	Age (years)
Primary Education	1 -5	5	5-9
Junior Secondary Education	6-9	4	10-13
Senior Secondary Education Phase 1	10-11	2	14-16
Senior Secondary Education Phase 11/Collegiate Level	12-13	2	16-18/19

Source: National Education Commission of Sri Lanka (2022), National Education Policy Framework 2020-2030.

It is during the junior secondary stage in the school system that the subject of geography is introduced to pupils. It is one of the mandatory subjects that pupils should learn during the four years of the junior secondary stage. At the senior secondary phase 1 stage, students should offer nine subjects of which six are core and three are optional. Geography is an optional subject. After completing the senior secondary phase 1, students sit the General Certificate of Education Examination (GCE O/L) conducted by the Department of Examinations of the government. Although an optional subject, a large number of students offer geography as a subject for this examination. With the commencement of senior secondary phase 11 or Collegiate Level, the school education starts its Advanced Level Cycle divided into four academic streams, namely Science and Mathematics, Arts, Commerce, and Technology. Geography falls into the Arts stream and is a popular subject in that stream. At the General Certificate of Education (Advanced Level) Examination held in 2022, it was the fourth most popular subject with 60,673 candidates sitting the examination. Of the total, 41974 were in the Sinhala medium, 18452 were in the Tamil medium and 247 were in the English medium (Commissioner General of Examinations, 2023).

The General Certificate of Education (Advanced Level) Examination serves two purposes. On one hand, it is a certification examination for school leavers who are entering the job market. On the other hand, it is considered a university entrance examination. Students who sit the examination in the Arts stream are selected to the universities on an all-island merit

basis and the intake into that segment is 40 percent of the total intake (since the available places in the universities are limited, only the students who score the highest marks will be able to get into the 40 percent.). At present, there are nine state universities in Sri Lanka with fully fledged Departments of Geography, and students are given three choices to select the preferred university but the final decision lies with the University Grants Commission (UGC). In all of the nine universities, geography is offered as a subject for the General Arts Degree Programme and as a subject for specialisation to read for an Honours Degree. Of the nine departments, two (Peradeniya and Colombo) offer their Honours courses in all three media of instruction, Sinhala, English, and Tamil. Another four (Ruhuna, Sabaragamuwa, Sri Jayewardenepura and Kelaniya), offer their honours courses in both Sinhala and English mediums. The Southeastern and Jaffna universities offer the programme in both Tamil and English medium. The Eastern University geography department offers their honours programme only in Tamil medium at present. All these departments of study are staffed with well-qualified academics mostly with postgraduate qualifications obtained from overseas universities. Also, almost all departments are equipped with GIS laboratories and students have access to modern spatial technologies.

In the late 1990s, a credit-based course unit system of teaching was introduced to the universities in Sri Lanka with a view to ironing out the differences in degree programmes conducted by different universities. An Honours Degree programme spanning over four years carries 120 credits while a three-year General Degree programme consists of 90 credits. The subjects of the degree programmes were divided into units and the academic year was divided into two semesters. Although it served its main purpose to a large extent, in a way, it adversely affected the holistic nature of some disciplines.

2. Methodology

The question to be answered in this study is whether there is a well-established relationship between school geography and academic geography in Sri Lanka. Since the study is focused on academic geographers and teachers, data and information were gathered through two purposive samples selected from them. The academic geography sample, comprising 20 university academics ranging from Chair Professors and Senior Professors to Professors, Senior Lecturers and Lecturers in Geography represented all universities with departments of geography. They also represented the three media of instruction. The second group comprised 94 graduate teachers who are engaged in teaching geography in Advanced Level classes in government schools. They, too, represent the three media of instruction. The groups were contacted with two separate questionnaires containing complementary and mutually reinforcing open-ended questions prepared in Google Form format. The survey was conducted during the period from January to March, 2023.

In the questionnaire sent to academic geographers, responses were expected on the following areas.

- The interest shown in school geography and underlying objectives
- Nature of involvement in school geography
- Views on the standard of school geography
- Subject knowledge of geography of the students entering the university
- Interaction needed and the nature of links
- Emphasis on disciplinary knowledge in teaching
- Impact of the credit-based course unit system followed in university teaching on imparting disciplinary knowledge
- Need for an elective course unit on geography education at the university level

The Senior Secondary Phase 11 (Grades 12 and 13), sometimes called collegiate level in school education, in effect, is a pre-university stage. Some factors specific to this stage guided the selection of the above-mentioned areas expecting responses from the academics. The most important reason for academics to be informed of the situation regarding teaching and learning at the collegiate level is the fact that it is from where the next cohort of undergraduates is coming into the university. An understanding of collegiate-level geography education would help academics to plan their first-year undergraduate curricula to suit the incoming undergraduates. Such an academic environment would ensure a smooth transition from the school to the university. Also, knowledge of collegiate-level education would be of help to decide on the areas which need the cooperation and assistance of academic geographers so that the standard of school geography could be upgraded. The objective of requesting information on disciplinary knowledge of geography is far-reaching. Disciplinary knowledge could be considered as the basis that facilitates students to think geographically which leads them to understand and explain what they see around the world and what they experience in their day-to-day life. Therefore, it would be of relevance to understand the extent to which academics are able to incorporate disciplinary knowledge in their teaching. Such information would be supplemented by the academics' views on the effects of the course unit system of pedagogy practiced in the universities.

Teachers are an important link in the relationship between school geography and academic geography. Since academic geographers tend to establish connections mostly with teachers who teach geography at the Advanced Level, graduate teachers teaching geography at the collegiate level were consulted in this study. They are graduates of various universities in Sri Lanka and possess identities specific to their universities. Also, they tend to establish links with their former lecturers and professors. A large majority of these teachers have obtained their professional educational qualifications (e.g. PGDE and M. Ed degrees) from the faculties of education of universities and some of them function as evaluators of the geography answer scripts of the Advanced Level Examination.

The teachers were given a slightly different questionnaire expecting responses to the following:

- Objectives of learning geography
- The relevance of geography studied at the university in teaching at the school level
- The relationship with academic departments/lecturers in geography in the universities
- Nature of the assistance expected, received, and the extent of satisfaction
- Factors inhibiting university/teacher relationships
- Basic concepts of geography used in teaching
- Whether the students entering the university are ready for higher studies in geography (college readiness)

The main reason for asking the above questions was to obtain information on the current status of the relationship between school teachers and university academics. It was also necessary to know what teachers expect from academics in order to improve the standard of their teaching. Since most of the teachers had their university education some time back, it would be beneficial to know whether their subject knowledge is still adequate and relevant for their teaching. With a view to understanding the opportunity available for students to develop skills to think geographically, it was necessary to know how teachers use concepts of geography in their pedagogy.

3. Results

The geography teachers in schools and the academic geographers in the universities are in unanimity that there should be an interrelationship between the two sectors. In fact, all school teachers who responded to the questionnaire emphasised the need for such a relationship. According to them, a relationship with university academics would be useful in order to be updated in knowledge, exchange knowledge, acquire new knowledge, and receive advice on how to train their students to answer the question papers (at the Advanced Level Examination). The academics viewing the relationship from another perspective, emphasise the fact that the knowledge that students acquire at school forms the foundation for university geography, and therefore academics should pay attention to school teaching. One senior academic, in fact, cautioned that if school children do not possess the required knowledge level, the universities could transform themselves into schools and private tuition institutions.

In Table 2, an attempt has been made to match the teachers' expectations with the contribution of university academics. It is apparent that teachers are very much interested in getting help on matters related to factual knowledge in geography. This is quite understandable given the highly competitive nature of the Advanced Level Examination conducted in Sri Lanka. It is indeed a formidable hurdle to jump over to enter the university. As such, teachers are eager to provide the maximum amount of factual knowledge hoping that their students will score high marks at the examination so that they will be able to get

into university. On the other hand, responding to teachers' requests, the academics too are inclined to provide more factual knowledge through various channels of communication.

Table 2: Teachers' Expectations and Responses of Academics

Teachers' Expectations	Number of Expectations	% of Expectations	Nature of Contribution of Academics Geographers	Number of Academics
Acquire new knowledge and be updated in the subject	34	33.3	Prepare lectures on YouTube	1
Get help to solve problems related to teaching/learning	24	22.2	Resource person at school level geography seminars	10
Opportunity to be acquainted with answering question papers	12	11.1	Conduct seminars for teachers	2
To share with students updated knowledge generated by academic research	2	1.9	Online communicatio n with teachers to solve their problems related to geography teaching (through WhatsApp)	1
Participate in seminars conducted by academics	14	12.9	A/L (Geography) paper marking	10
Discuss problems related to the syllabus	12	11.1	Writing articles and books	1
To exchange knowledge	2	1.9		
Acquire knowledge on new knowledge related to techniques e.g. (GIS)	6	5.6		
Total number of expectations	106			25

Notes:
Teachers = 94 (total number of expectations is more than the number of respondents due to the (fact that some teachers have expressed more than one expectation)
N (Academics) = 20 (some academics are involved in more than one activity)

Source: Survey on the Relationship between School Geography and Academic Geography, in Sri Lanka, March, 2023

However, some teachers are of the view that although students do succeed in entering the university, their knowledge is not sufficient to follow geography as undergraduates. Of the teachers who responded to the survey question "Do you think that the students who are selected to read geography at Universities possess the required knowledge and understanding?", 30.0 percent replied in the negative. In fact, teachers were not alone. When the academics were asked about the subject knowledge of the incoming students, of the 20 academics, four were of the view that students do not possess adequate subject knowledge. An equal number of academics thought that students possess good knowledge but the majority (12) were of the view that they have an average level of knowledge in the subject. Academics interpreted this state of affairs with a few important explanations. A major reason was that students have been prepared for an examination at the expense of providing disciplinary knowledge. They were of the view that due to the extreme competitiveness of the examination, students would focus only on amassing content knowledge. At the same time, teachers lacked training in disciplinary knowledge. They were also lacking updated knowledge. Another explanation was that students were attracted by private tuition classes where they receive more content knowledge solely aimed at the examination (it is no secret that students in general do not attend the second year of the advanced level class in school, as they prefer attending private tuition classes over going to school).

Teachers were also of the view that the examination-focused nature of teaching has prevented students from gaining an understanding of the subject. Another explanation was that although the field of academic geography has been changing (slowly), it percolates to the school level only at a very slow pace. They also pointed out that academics do not pay sufficient attention to school geography. Some of them were concerned about the fact that in some instance's geography is taught by teachers who are not proficient in the subject.

However, only a very limited number of students are fortunate enough to enter the university. A large majority of them enter the job market after the A/ Level examination. At the job market, their knowledge of the subject and its relevance to the development of the country is tested. Often, students face difficulties in convincing the job providers of the utility value of the subject they have studied due to the lack of disciplinary knowledge. In fact, of the total number of teachers who responded to the questionnaire, only 17 percent (N=16) were familiar with the basic concepts in geography that could be adopted in their classroom teaching (Table 3). It should also be noted that nearly 30 percent of the respondents had not answered the question on their familiarity with basic concepts of geography.

Table 3: The Basic Concepts of Geography used by Teachers

Concepts (as teachers presented)	Usefulness of the Concepts
Location, place, space, interrelationships, movements, region	To explain geography easily.
distribution, mobility, region, dispersion	Explain distributions, identify regions
Landscape, time and space, migration	Help to explain human activities
Processes and patterns	Help to think geographically
Scale	Teach regions
Systems, cyclical processes	Study variations in the interrelationships between physical and human environments and their dynamic nature
Movement	Understand population migration

Source: Source: Survey on the Relationship between School Geography and Academic Geography, in Sri Lanka, March 2023

4. Discussion

As responses to the survey reveal, the academics as well as the teachers are very much in favors of initiating linkages between them. In fact, interactions between academics and teachers are taking place in numerous ways. If the purpose of geography education at the school level is to be successful at the Advanced Level Examination and enter the university, the apparent linkages are praiseworthy. But is it the real purpose of geography education? The memorization of the substantive knowledge and emptying it at the examination would negatively impact students who want to pursue geography as an academic discipline. This is evident from the criticisms leveled at geography students by potential employers as well as from the responses of some academics on the disciplinary knowledge of the incoming students to the university. The situation has adversely affected the school geography, and in recent times, its place within social science disciplines has been devalued and degraded (Dangalle, 2021). The absence of the ability to think geographically has prevented students from making an appreciable contribution to the development of the country.

It seems that teachers are barely conversant with the basic concepts of geography which would be an entry point in geographical pedagogy, resulting in producing students who have the ability to think geographically (Table 3). The roots of the problem, in fact, could be traced back to their undergraduate education where there was hardly any opportunity for them to be familiarized with the disciplinary knowledge in geography. As Hennayake (2021) explains,

> [s]tudents are accumulating a set of knowledge on the human and physical segments of the world in a highly fragmented/divided way. As a result, they cannot appreciate the interrelatedness and the interdisciplinarity of the world we live in and understand the holistic nature of Geography… The students [have] thus, become experts of a corpus of "dispersed knowledges," unable to inculcate a sense of geographical thinking that should be a fundamental task of geographical education at the undergraduate level. (p.4)

An attempt was made in this study to identify whether there is a relationship between the course unit system practiced in the universities and the reality of Hennayake's finding that 'students are accumulating a set of knowledge on the human and physical segments of the world in a highly fragmented/divided way'. In the present survey, when the academics were asked about the course unit system, of the 20 academics who responded to the questionnaire, 12 were of the view that the course unit system has adversely affected the horizontal integration of the discipline and some of them were worried that it would contribute to the disappearance of the broad basis of the discipline. Many of them pointed out that the limited time permitted in the system does not allow them to impart even a sufficient amount of substantive knowledge to students. In consequence, academic geography continues to produce graduates with limited or no disciplinary knowledge.

Fig. 1 is an attempt to present the nature of the relationship between school geography and academic geography in Sri Lanka at present. It shows three sub-scenarios. In one of them, the teachers' request for substantive knowledge in order to make their students successful at the Advanced Level Examination is well responded to by the academics. It operates as a cyclical process with hardly any reference to disciplinary knowledge. On the other, the lack of attention to the disciplinary knowledge of geography at the undergraduate level in the university is shown as the root cause of the problem. The undergraduates who graduate from the universities as graduates in geography lack disciplinary knowledge and those who enter the teaching profession preoccupied with the objective of making students successful at the examination keep transferring substantive knowledge to students. Thirdly, graduates and others who enter the world of work without any training to think geographically find it difficult to make an appreciable contribution to society and the country.

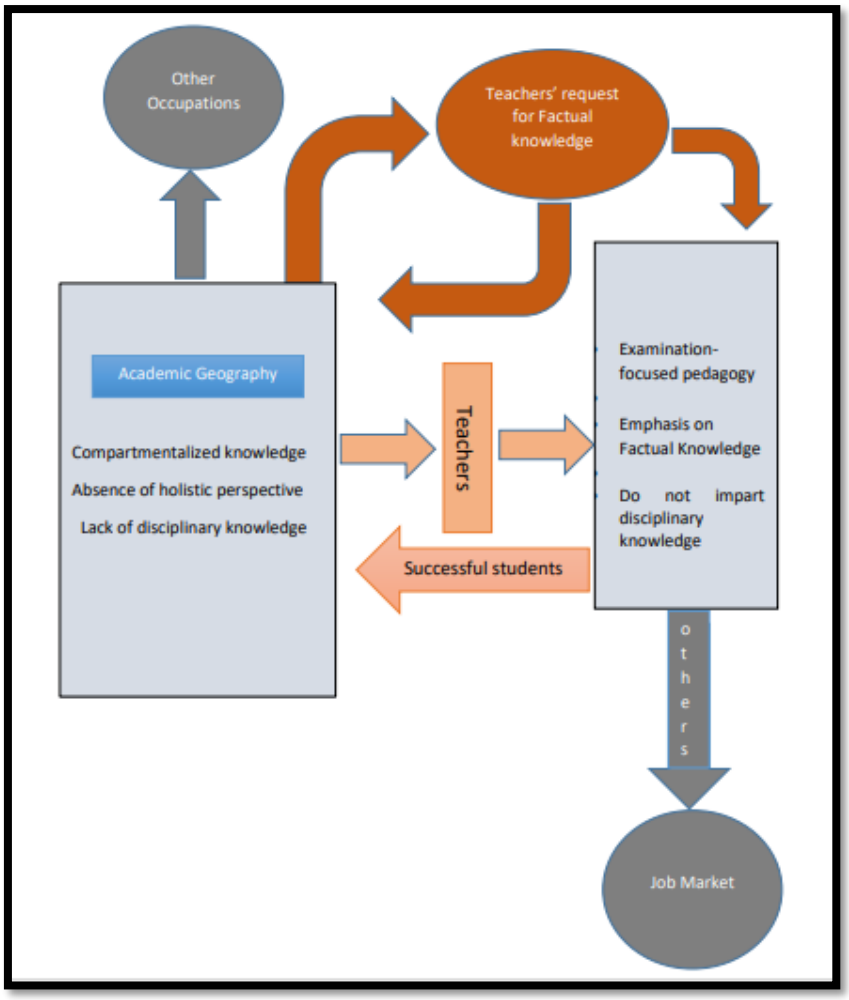

Figure 1: Relationship between School Geography and Academic Geography in Sri Lanka
Source: Author compilation, 2024

The ability to think geographically inculcated by disciplinary knowledge empowers students, as Hanson (2004) mentions, with ''the geographic advantage'' (p.720), a phrase that communicates the truth that geographers have something unique to offer. The geographic advantage will provide students with the abilities that Maude (2016) has elaborated as follows:

- discover new ways of thinking
- explain and understand the natural and social world better
- think about alternative futures and what they could do to influence them
- have some power over their own knowledge
- be able to engage in current debates of significance and
- go beyond the limits of their personal experience (Maude, 2016, p.72)

To make these expectations a reality, a close and continuing relationship between academic geography and school geography is essential and as has been emphasised by Brooks et.al (2017), the "universities, with their key role of advancing disciplinary research, are at the core of defining and re-defining the powerful nature of the content of geography" and in spite of the busy day to day focus on teaching and learning schools "have important functions in ensuring that the powerful thought that underpins geographical knowledge [is] passed on to, and then further explored, with young learners" (p.3).

In the Sri Lankan context, a few steps could be taken to establish a meaningful and productive relationship between school geography and academic geography. It is of crucial importance to avoid compartmentalization and horizontal disintegration of the discipline at the undergraduate level and to reestablish its holistic perspective which will yield in enhancing the ability to think geographically. Some of the academics (10 out 20 academics) in fact, were in favour of introducing an elective course unit on geography education which would be of help in bringing back the vision and mission of the discipline. Strengthening the disciplinary knowledge will eventually percolate down into curriculum planning at the school level resulting in a chain of changes in teaching, pedagogy, and assessment. It would also facilitate school teachers to visualise the big picture of the discipline without limiting themselves to an examination-focused pedagogy. Furthermore, the academic geographers' involvement in educating the teacher community could be expanded to encompass the dissemination of disciplinary knowledge and pedagogical practices. These measures, in fact, not only enhance the image of geography as a discipline, but also will result in increasing the employability potential of the graduates. However, the above-mentioned changes will require a strong commitment at an institutional level between the universities and education authorities responsible for school education.

5. Conclusion

It is evident that the relationship between school geography and academic geography in Sri Lanka is heavily inclined toward the transfer of substantive knowledge. The inadequate attention paid to disciplinary knowledge has resulted in an unsatisfactory situation in which the discipline has been devalued and unrecognised. To re-establish its due position in the school curriculum and build a human resource empowered with the geographic advantage, it is necessary to pay more attention to disciplinary knowledge in geography. In this attempt, the head start should be taken at the undergraduate level at the universities. The graduates with both substantive knowledge and disciplinary knowledge would initiate a chain of changes in the school curriculum, pedagogy, and assessment thereby contributing to society as a human resource with the ability to think geographically.

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References

Bonnett, A. (2003). Geography as the world discipline: Connecting popular and academic geographical imaginations. *Area***,** *35*(1), 55–63.

Brooks, C., Butt, G., & Fargher, M. (2017). Introduction: Why is it timely to (re)consider what makes geographical thinking powerful? In Clare Brooks, Graham Butt and Mary Fargher et. al (Ed.). pp. 1-8, *The power of geographical thinking.* Springer International Publishing AG.

Butt, G. (2019). Bridging the divide between school and university geography – "mind the gap!". In H. Walkington, J. Hill, and S. Dyer (Eds.) pp. 31–45, *Handbook for teaching and learning in geography*. Edward Elgar Publishing.

Commissioner General of Examinations (2023). As revealed in the address at the confidential meeting on the Advanced Level Examination held at the Department of Examinations.

Dangalle, N. (2021). Powerful knowledge with geography. *Sri Lanka Journal of Social Sciences, 44*(1), 115-117.

Dharmasiri, L. M. (2015). New strategies in the curriculum development in geography: A lesson from Sri Lanka, Conference: International Conference on Geography Education, Bangladesh (pp. 1-10)

Frazier, A. E. & Wikle, T. A. (2017) Renaming and rebranding within U.S. and Canadian Geography Departments, 1990–2014. *The Professional Geographer, 69*(1), 12-21.

Goudie, A. (1993). Schools and universities – the great divide. *Geography, 78*(4), 338–339.

Hanson, S. (2004). Who are we? An important question for geography's future. *Annals of the Association of American Geographers, 94*(4), 715–722.

Hennayake, N. (2021). Reflecting on geography higher education in Sri Lanka: Unpacking/ releasing the hegemonic burden. *Transactions of the Institute of British Geographers, 47*(1), 34-40.

Hill, J. L. l & Jones, M. (2010). 'Joined-up geography': Connecting school-level and university level geographies. *Geography, 95*(1), 22-32.

Jeffrey, C. (2003). Bridging the gulf between secondary school and university-level geography teachers: Reflections on organising a UK teachers' conference. *Journal of Geography in Higher Education,* 27(2), 201-215.

Jones, M. C. (2023). Missing major: The limited presence of geography in New England Higher Education. *Journal of Geography, 122*(1), 2-19.

Jones, M. C. & Luna, M. (2019). Geography deserts: State and regional variation in the formal opportunity to learn Geography in the United States, 2005–2015. *Journal of Geography,* 118(2). pp 1-13

Katupotha, J. (2007). Conference: Annual academic sessions, Faculty of Education, The Open University of Sri Lanka, Nugegoda, Sri Lanka. Pp. 48 -51

Lambert, D. (2013). Collecting our thoughts: School geography in retrospect and prospect. *Geography, 98*, 10-17.

Maude, A. (2016). What might powerful geographical knowledge look like? *Geography, 101*(2), 70-76.

Maude, A. (2020). The role of geography's concepts and powerful knowledge in a future 3 curriculum. *International Research in Geographical and Environmental Education, 29*(3), 232-243.

National Education Commission of Sri Lanka (2022). National Education Policy Framework, 2020-2030, NEC.

Rawding, C. **(**2010). What are the connections between subject developments in academic and school geography? *International Research in Geographical and Environmental Education, 19*(2), 119–125.

Rawling, E. (2020). How and why national curriculum frameworks are failing geography. *Geography*, 105(2), 69-77.

Solem, M. (2011). Introduction: Towards a scholarship of academic practice. *Journal of Geography in Higher Education, 35*(3), 311-314.

Stannard, K. (2003). Earth to academia: On the need to reconnect university and school geography. *Area, 35*(3), 316–322.

Toffler, A. (1974). *Learning for tomorrow: The role of the future in education*. Vintage Books.