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## **Mapping the Journey Towards Self-Authorship in Geography**

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## **Mapping the Journey Towards Self-Authorship in Geography**

**ABSTRACT** *Learning is a developmental journey and the geography curriculum plays a key role in supporting student progression. In this paper, we argue that the concept of 'self-authorship' is a useful guiding principle in supporting curriculum revision and reform. A series of international case studies illustrates how self-authorship can be enacted in different ways within geography curricula in a range of contexts. The role of a range of collaborators and the co-curriculum in supporting the student journey is highlighted. The paper concludes by suggesting that the key strength of the concept is its non-prescriptive nature.*

**KEY WORDS:** Curriculum, curriculum design, self-authorship, Learning Partnerships Model

## **Mapping the Journey Towards Self-Authorship in Geography**

*I want you to imagine that you have been asked to form a new department of geography. Given the rare opportunity to write without constraint, would your curricula bear much resemblance to most of the formal courses of study to be found today? With any luck, your answer will be something like, good grief no! If your answer is something else...there is not much hope for the future! (Gould, 1973, p.253).*

## **Introduction, Purpose, Goals, and Research Question**

The quote above serves as a reminder that the development and dissemination of innovative curriculum remains a challenge for geography educators almost four decades after Peter Gould made his observation. Despite efforts to re-vision, re-create, and re-think the curriculum in geographic education since the early 1970s, a great deal remains to be accomplished. Our primary concern in this article is to present a vision that deeply embeds opportunities within the geography curriculum for students to engage in self-directed learning, to think independently, to make more informed choices and achieve their academic and personal goals.

This paper provides specific examples of how one particular approach to curriculum design can be successfully utilised in planning geography curricula. Our overarching goal is to encourage geographers collectively to think about ways through which the process of 'self-authorship' can enhance authentic student learning in geography classes and programs. Self-authorship is based on a student's "capacity to internally define a coherent belief system and identity that coordinates engagement in mutual relations with the larger world" (Baxter Magolda, 2004, p.xxii). As a process, it encourages students to balance external influences with their internally held beliefs and to engage in intense reflection of their own learning process. Typical skills associated with this approach include the ability of students to critically analyse and evaluate information, to view 'known truths' from multiple perspectives, to embrace diversity and ambiguity and to develop an independent learning capacity and their own voice. While many of these ideas and aspirations are very much in line with current educational thought on the importance of greater levels of student autonomy and more experiential

learning, self-authorship as a concept was first discussed in the 1960s. In the past decade, it has gained increasing attention as the concept has been expanded, tested, and refined and there is now an extensive body of research supporting the approach (Baxter Magolda, 1992, 2001, 2006; Hodge *et al.*, 2007, 2008a, 2008b, 2009; and Keegan, 1994).

We offer 'self-authorship' as a guiding principle for curriculum reform and revision efforts in geography. In this paper, we examine what self-authorship could look like in geographic education and provide some suggestions for implementing this approach in geography classrooms and programs in the sections that follow. Our conceptual discussion of self-authorship is followed by a series of international case studies that provide examples of the approach embedded within higher education geography curricula. Each of these case studies provides a concrete example of an effective way to encourage students to understand, apply, and create their own meanings through mastery of specific content and skills in geography. In addition they illustrate the use of a holistic approach that addresses the affective as well as the cognitive dimensions of student development. In the final section of this paper, we offer some preliminary conclusions and reflections that may point the way towards a greater role for self-authorship in geography education.

### **Rethinking and Designing the Geography Curriculum**

Curriculum is an ambiguous concept and may be defined in a variety of ways depending on the cultural context, educational system, and level of education. A curriculum is, perhaps, most often understood in terms of the specific content to be covered in a course

or set of courses. Thus, a geography curriculum usually refers to a prescribed package of materials designed to help students master a specific set of goals and objectives. The most useful curriculum has the potential to be used by a novice teacher, but can also be expanded and changed over time in a fluid, flexible, and organized way and created, assessed, and then (re)created in the hands of each individual educator. In this view, curricula can perhaps best be considered as a 'map' that is designed according to an established scale, projection, and language.

Curriculum is also heavily influenced by the socio-cultural context within which it is initially designed and then reformed. In the U.S. the higher education curriculum in most disciplines is controlled at the department level. There are some state college and university systems that require common course titles, descriptions, and numbering to facilitate what are called "articulation agreements". That means students can transfer from one school to another with a guarantee that their course work will also transfer from one institution to another without constraints. However, there is a great deal of freedom usually governed by some sort of university-level approval or oversight committee. Increasingly there is a call for assessment of programs where departments are required to develop goals and standards and then to evaluate how their students are meeting those standards, but this varies from school to school. In summary, curriculum in U.S. geography is guided by disciplinary tradition, inertia, and the standards of individual departments. In Ireland and the UK curriculum broadly prescribes key topics or content that must or should be covered and the learning outcomes that should be achieved on completion. In the UK the Quality Assurance Agency has produced a benchmark statement for geography which describes the nature and characteristics of programmes in

the discipline and provides general expectations about standards for the award of a degree in terms of the attributes and capabilities that students should demonstrate (QAA, 2007).

Designing the curriculum is a key strategic issue for geography departments, but it has not received the attention it deserves (Healey *et al.*, 2010). This may partly be related to the difficult decision-making required from all stakeholders and the potentially contentious nature of curriculum design and reform. Key questions arising during this process of revision include (adapted from Jenkins, 1998, p.3):

- What curriculum is most essential for students to master and experience?
- What geography content and skills are to be mastered by students before they enroll in a course?
- How can staff most effectively present learning materials and content to students?
- How can students be taught to go beyond mastering only the basic content included in a certain curriculum so that it becomes a part of himself/herself and remembered and used many years later?

Some of these questions are much easier to answer than others. As a discipline, geography is particularly well positioned to help facilitate student engagement and learning due to its holistic subject matter and the wide range of teaching practices that can be implemented in a variety of settings. In their general study on student engagement, Nystrand & Gamoran (1991) identify a range of teaching practices with a highly positive impact on substantive engagement. They concluded that learning was most effectively achieved when collaborative and peer learning approaches, as well as group work and

fieldwork, were utilised. Geographers typically use many of these teaching approaches, creating opportunities for students to experience meaningful content-based learning.

In recent years, the discipline has also rediscovered its role as an interdisciplinary bridge. Public debate and concern for issues broadly geographical from global interdependence to climate change has provided a context within which the learning environment should be easily connected by both teachers and learners to 'real world' events. Encouraging students to connect ideas from both academic and personal experiences to their current learning is a highly effective teaching and learning method (Dummer *et al.*, 2008) and one that should be comparatively easier to achieve in geography than in other disciplines. This kind of active engagement prepares students to think and inquire spatially (Spronken-Smith *et al.*, 2008, 2009) and “do geography” in practice (Boyle *et al.* 2007). There is therefore clear evidence from a range of studies regarding the key content, skills and effective teaching methods that should be encouraged in any revision of existing curriculum.

What is not so easy and the biggest challenge for curriculum reform is how best to encourage students to go beyond mastering subject content so that it becomes a part of himself/herself and remembered and used many years later? We hypothesize that the process of self-authorship may provide a useful method for facilitating better engagement and deeper learning at the same time as we develop more critical and informed world citizens.

## **Conceptualising the Development of Self-authorship**

During the last four decades, educators have shifted their focus from a teaching to a learning paradigm (Barr & Tagg, 1995) and towards a more student-oriented design of curricula that aims to empower students as critical thinkers. The aim is to move away from the scholar's "traditional role of the expert or the tendency to seek students' approval and instead push students to gain intellectual, relational and personal maturity through continuous feedback and high expectations" (Hodge, *et al.*, 2009, p.19). Recently a number of writers have suggested the need for a further shift towards a 'discovery paradigm' in which students become the creators and constructors of knowledge not just the consumers (Table 1, Hodge, *et al.*, 2008b; Healey & Jenkins, 2009).

*(TABLE 1 about here)*

In these debates, the metaphor of a journey is frequently used to describe the learning processes of a student during college education. The educator's role is to accompany the students on their voyage:

We offer maps (e.g., the curriculum and co-curriculum) and highlight possible pathways (e.g., majors, leadership, opportunities). We point out important stops along the way and activities to pursue at those stops that will make the journey more productive. We advise students when to slow down, when to let traffic pass, and when to use their brakes. We encourage students to explore on their journey, but at the same time to be mindful of others along the way. Educators also monitor travel difficulties. We help students who get stuck along the way and

seem to have trouble getting back on the road. We deal with instances of road rage – travellers who violate others’ rights in their exploration, or who lose control of themselves to their own detriment. Being good company for literally thousands of students, all of whom are on different journeys, is a complex challenge (Baxter Magolda, 2001, p.xvi).

Building on the work of Perry (1970) and Kegan (1994), Baxter Magolda has been conducting a longitudinal study on the ways of knowing among students who started in college almost 25 years ago (Baxter Magolda, 1992, 2001, 2004). Based on interviews in intervals of one year, she has gained insights into their learning processes and experiences and developed a framework for analyzing the intellectual growth of students through the lens of self-authorship and the Learning Partnerships Model (LPM) that aims to *transform* rather than *redesign* educational practice (Baxter Magolda, 1992, p.xiv). In her writings, she suggests that students’ construction of meaning (or ways of knowing) progresses over time from absolute knowing, through transitional and independent knowing, to contextual knowing or self-authorship (Table 2).

*(TABLE 2 about here)*

Such transformative learning (Mezirow, 2000) adopts a holistic approach to student intellectual development:

Moving away from uncritical acceptance of knowledge to critically constructing one’s own perspective, however, is more complex than learning a skill set. It is a

transformation of how we think – a change in our assumptions about the certainty, source and limits of knowledge (Baxter Magolda, 2006, p.50).

The Learning Partnerships Model provides guidance for the journey towards self-authorship by bringing together the curricula students experience in the classroom with its emphasis on knowledge, with what they concurrently experience outside the classroom, the co-curricula, and with its emphasis on affect:

Learning partnerships support self-authorship via *three principles*: validating learner's capacity as knowledge constructors, situated learning in learners' experiences, and defining learning as mutually constructing meaning. Validating learners' capacity to learn and construct knowledge is necessary for them to realize that they can go back to the potter's wheel. Situating learning in their experience instead of the experience of authority gives them a context from which to bring their identity to learning. Defining learning as a mutual process of exchanging perspectives to arrive at knowledge claims supports their participation in the social construction of knowledge (Baxter Magolda, 2004, p.xix).

Hodge *et al.* (2008b) have drawn on Baxter Magolda's ideas to map out a developmental journey for students (Table 3). However, as students go through the stages at different rates and many may not reach the self-authorship stage by the end of their undergraduate course it would be a mistake to map the three levels neatly to a three or four year curriculum. One of our biggest challenges in designing learning activities and assessments is to facilitate students at different stages in their intellectual journey. A similar schema has been developed by Taylor & Haynes (2008, p.5) who have devised

outcomes for a three tiered curriculum and co-curriculum “that steadily lead students toward the capacity to engage in sophisticated intellectual and creative activities, build mature relationships, and make decisions based on an internal belief system.”

*(Table 3 about here)*

### **Enacting Self-authorship in the Geography Curriculum: International Exemplars**

Students do not all progress along the path to self-authorship at similar rates so it would be disingenuous to attempt to map particular milestones in the journey to specific points in the undergraduate curriculum. Having said that, the journey to self-authorship does need to be carefully managed to ensure that early experiences are perceived as worthwhile and challenging rather than overwhelming. With this in mind, different kinds of activities to support the process of self-authorship may be considered more or less appropriate depending on the stage at which they are introduced. This section of the paper introduces a series of five case studies, all of which provide specific examples of how self-authorship has been fostered in a variety of educational settings through a learning partnership approach.

The first example is from Miami University, Ohio, USA and represents a very specific approach given that it has been introduced as part of a university top-down policy to foster better student engagement. Box 1 illustrates how one particular course, *Global Forces/Local Diversity*, has challenged students to engage with conceptual material and to begin to explore their role as knowledge constructors within the

geography curriculum. Increasingly inquiry-based learning approaches such as this are being effectively used as a mechanism to enthuse students about their role as learners and researchers in higher education institutions even from their very first encounter at the University.

*(Insert Box 1 about here)*

Box 2 illustrates how this is enacted at the University of Gloucestershire where such an approach forms an important component of the university induction programme. The advent of new technologies has also facilitated this new emphasis as exemplified at University College Dublin in Ireland, where an introductory Human Geography module has recently been transformed from a more traditional lecture style course to one that uses a blended learning approach extending well beyond the media used to incorporate all aspects of, and inputs into, the learning process. Drawing on work by Garrison and Vaughan (2008, p. 30) who suggest that "the fusion of real and virtual experiences [through blended learning] creates unique communities of inquiry that are accessible regardless of time and location", the course leaders viewed the VLE as a tool for facilitating the mutual construction of meaning through collaborative work. Inquiry is also at the heart of the approach at McMaster University in Ontario to improve student writing from first year (Box 3). The structure of this course ensures that not only do students get the opportunity to work collaboratively on small research projects but they also must reflect on their, and others, learning processes. Empowering students as critical thinkers and providing a range of types of feedback, from both instructors and peers, is critical to the self-authorship approach.

*(Insert Box 2 about here)*

*(Insert Box 3 about here)*

As each of our case studies show, the theme of collaboration is one that is critical in effectively supporting the journey towards self-authorship but collaboration need not necessarily be confined to peer or learner-instructor relationships. Baxter Magolda (2004) argues that a holistic approach to learning that draws on extra-curricular as well as classroom-type experiences is critical to student progression as it facilitates the construction of meaning over time and the grounding of learning experiences. This is particularly evident in one approach taken within the second year undergraduate curriculum at the Australian National University (Box 4). The Vietnam Field School is an intensive learning experience where classroom and conceptual knowledge is enhanced, challenged and refined through interactions in the field with other students, instructors and residents of the various locations visited.

*(Insert Box 4 about here)*

Reflection is a critical component of the course enabling students to monitor how their understandings and ideas mature through their learning experiences in the field and to chart their own intellectual and personal progression. A core component of the ANU approach is to make the implicit explicit through a final seminar where students are asked to self-identify their own development. The deliberate incorporation these kinds of extra-curricular experiences and encounters into the curriculum in order to facilitate the intellectual, relational and personal development of students is becoming an increasingly

important component of curriculum revision and reform. At Samford University, Alabama, this is given expression through the *Geography In Practice* component of the curriculum (Box 5). Following their progression through a number of core and elective courses, students have the opportunity to engage with external "clients" or with academic supervisors to develop their research skills through specific projects. A similar approach is undertaken in Brazil, where this type of beyond-the-curriculum learning is practiced through the "Program for Tutorial Education" (PET). Faculty members tutor and train small groups of undergraduate students to develop projects in research, education, and off-campus activities, foster their participation in academic events, and publish their findings (Ribeiro & Marafon, 2005). As with many of the other examples mentioned, the overall goal is to ensure that students are facilitated in developing as independent, critical thinkers and responsible active citizens.

*(Insert Box 5 about here)*

## **Conclusion**

The move towards adopting more student-oriented approaches to teaching and learning and developing students as critical thinkers provides significant challenges to those engaged in curriculum development and reform. In this paper, we have argued that the concept of self-authorship may provide a useful tool for guiding curriculum change and in promoting more holistic approaches to learning that support collaboration, reflection and more autonomous student learning. Learning is a partnership but one that can effectively develop and extend beyond the bounds of the classroom. If we are to be successful in guiding our students on their journey towards self-authorship we should

also pay attention to supporting their development through the co-curriculum. Through our specific case studies, we have illustrated how a variety of geography departments internationally are facilitating students on their journeys towards self-authorship. We have shown that this need not necessarily depend on major capstone projects or the development of entirely new courses but can effectively be achieved through alternative approaches to teaching and learning in the existing curriculum. Geography departments can also take a more outward looking approach to curriculum reform and at least two of our case studies have demonstrated how fieldwork or internships can facilitate engagements with employers, community groups and others that support students on their intellectual and personal journeys. While a useful tool for framing departmental or university discussions, the value of the self-authorship concept is its flexible and non-prescriptive nature. As each student will move along the path towards self-authorship at different rates, the challenge for educators is to facilitate the journey without attempting to impose particular developmental stages on to existing curriculum structures. Used effectively, the concept of self-authorship provides a useful tool for responding to Professor Gould's call for a more relevant and engaging curriculum for the students of today.

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Table 1: Changing educational paradigms (Hodge, Pasquesi & Hirsh, 2007, p.3)

Paradigm	Approach
Teaching	Telling students what they need to know
Learning	Engaging students in learning how to learn; emphasis on learning what they need to know
Discovery	Encouraging students to seek and discover new knowledge

Table 2: Development of students' construction of meaning (Baxter Magolda, 1992, p.30)

Domains	Absolute Knowing	Traditional Knowing	Independent Knowing	Contextual Knowing
<i>Role of learner</i>	<ul style="list-style-type: none"> <li>Obtains knowledge from instructor</li> </ul>	<ul style="list-style-type: none"> <li>Understands knowledge</li> </ul>	<ul style="list-style-type: none"> <li>Thinks for self</li> <li>Shares views with others</li> <li>Creates own perspectives</li> </ul>	<ul style="list-style-type: none"> <li>Exchanges and compares perspectives</li> <li>Thinks through problems</li> <li>Integrates and applies knowledge</li> </ul>
<i>Role of peers</i>	<ul style="list-style-type: none"> <li>Share material</li> <li>Explain what they have learned to each other</li> </ul>	<ul style="list-style-type: none"> <li>Provide active exchanges</li> </ul>	<ul style="list-style-type: none"> <li>Share views</li> <li>Serve as a source of knowledge</li> </ul>	<ul style="list-style-type: none"> <li>Enhance learning via quality contributions</li> </ul>
<i>Role of instructor</i>	<ul style="list-style-type: none"> <li>Communicates knowledge appropriately</li> <li>Ensures that students understand knowledge</li> </ul>	<ul style="list-style-type: none"> <li>Uses methods aimed at understanding</li> <li>Employs methods that help apply knowledge</li> </ul>	<ul style="list-style-type: none"> <li>Promotes independent thinking</li> <li>Promotes exchange of opinions</li> </ul>	<ul style="list-style-type: none"> <li>Promotes application of knowledge in context</li> <li>Promotes evaluative discussion of perspectives</li> <li>Student and teacher critique each other</li> </ul>
<i>Evaluation</i>	<ul style="list-style-type: none"> <li>Provides vehicle to show instructor what was learned</li> </ul>	<ul style="list-style-type: none"> <li>Measures students understanding of the material</li> </ul>	<ul style="list-style-type: none"> <li>Rewards independent thinking</li> </ul>	<ul style="list-style-type: none"> <li>Accurately measures competence</li> <li>Student and teacher work toward goal and measure progress</li> </ul>
<i>Nature of knowledge</i>	<ul style="list-style-type: none"> <li>Is certain or absolute</li> </ul>	<ul style="list-style-type: none"> <li>Is partially certain and partially uncertain</li> </ul>	<ul style="list-style-type: none"> <li>Is uncertain - everyone has own beliefs</li> </ul>	<ul style="list-style-type: none"> <li>Is contextual; judge on basis of evidence in context</li> </ul>

Table 3: The developmental journey of the student (Hodge, Haynes, LePore, Pasquesi & Hirsh, 2008b)

Developmental level	Student traits
Reliance on external references <i>[Foundations]</i>	Knowledge viewed as certain Reliance on authorities (e.g., professors, parents) as source of knowledge Externally defined value system and identity Act in relationships to acquire approval
At the crossroads <i>[Intermediate Learning]</i>	Evolving awareness of multiple perspectives and uncertainty Evolving awareness of own values and identity and of limitations of dependent relationships

Box 1: Miami University, Ohio, USA

*Encouraging self-authorship in introductory human geography via student-created, collaborative, place-based case studies*

The Department of Geography at Miami recently redesigned its introductory human geography course, *Global Forces/Local Diversity*. The primary goal was to provide support for undergraduate geography students along the journey to self-authorship by involving them in their own learning. This is accomplished by moving away from traditional teaching modes (e.g. lectures, textbook reading assignments, exams) toward an approach based on weaving student-created case study inquiries into everyday teaching and learning. Students are asked to do conceptual and thematic research in collaborative groups on real issues in particular places. They then share their multi-media projects with other students enrolled in the class (digitally and in person) and these student-created geographical portraits are ultimately incorporated into class discussions.

Students learn about their own place in a changing and complex world by exploring globalization as it unfolds in local places and current events. Thematic case studies forming the center point of this course can easily be adapted, expanded, and/or revised by new faculty or graduate student instructors over time. This not only allows the class to be taught by a variety of diverse faculty , it also keeps course content up-to-date.

Self-authorship is also encouraged in the course by (1) conveying to students that knowledge is complex and socially constructed; (2) validating learners' 'capacity to know' by trusting in their ability to conduct collaborative research and sharing in mutually constructed meaning; and (3) showing students how to develop a framework for authoring and analyzing multiple perspectives.

Geography is only one of several introductory courses which have been converted to inquiry-based learning as part of the 'Top 25' project at Miami (Hodge *et al.*, (2008b).

*Sources and further information:*

[http://www.units.muohio.edu/celt/engaged\\_learning/top25/proposals/round1/geo%2](http://www.units.muohio.edu/celt/engaged_learning/top25/proposals/round1/geo%2)

[http://www. units.muohio.edu/celt/engaged\\_learning/top25/](http://www.units.muohio.edu/celt/engaged_learning/top25/)

*Undergraduate Research at the University of Gloucestershire, UK begins at Induction/Orientation*

In 2007, over 650 students in the Faculty of Education, Humanities and Science undertook discipline-based inquiry projects during induction week. This involved them working in small groups to collect information from the library and in the field, analyse it, present it to tutors in novel ways and receive formative feedback. For example, the human geographers and the sociologists researched the experience of Gloucester residents of ‘the Great Flood of 2007’. Physical geographers investigated a scenario of establishing a wolf park in the Forest of Dean. Other faculties in the University are developing their own versions of undergraduate research as part of induction. It has also proved a significant staff development activity both for the many academic tutors involved in designing inquiry-led activities and for the library staff who changed their approach to library induction to support the specific student research projects.

This approach helps to start the students on the journey to self-authorship by giving them an enjoyable inquiry-led learning experience before they start their first formal class. The challenge is to build on this approach to learning in the way the curriculum is designed in the first and subsequent years of the students’ programmes.

*Sources and further information:*

Healey and Jenkins (2009) and [resources.glos.ac.uk/ceal/pre-induction/index.cfm](http://resources.glos.ac.uk/ceal/pre-induction/index.cfm)

Box 2: University of Gloucestershire, Cheltenham, UK

Box 3: McMaster University, Ontario, Canada

*Improving Student Writing through Small, Inquiry-based Classes*

Students struggle with the act of writing while instructors struggle with quality of student writing, reporting in some cases that they feel writing quality is declining at the same time as undergraduate student class size is increasing making providing individualized writing feedback a greater challenge. McMaster University, a mid-sized, research-intensive, Canadian university has attempted to address this challenge in the Faculty of Social Sciences through the creation of inquiry-based small-sized (<30 students) in first year.

Students are provided the opportunity on four occasions in the course to engage in the entire writing process during a three-hour class. At the start of the class students arrange themselves in group of three to five students and are provided a short, usually editorial piece on a topic related to the course. Working in a combination of individual, small group and plenary sessions the students develop a research question in each group, identify the resources that they would require to answer the question, identify the possible library search strategies they would employ, develop a draft response which includes a potential layout for the paper, develop a time management strategy about how they would complete the paper and finally reflect on each group members (including their own) strengths and weaknesses. Students report an increased confidence in their ability to write and to locate library sources as a result of this exercise. In addition students report they were unaware that different students take different approaches to their writing.

Research on this approach has shown that students who have taken the course perform better in later courses than other students; and more go on to take honours (Justice *et al.*, 2007a, 2007b).

*Sources and further information:*

<http://c1l.mcmaster.ca/resources/inquiry.html>

Box 4: Australian National University, Canberra, Australia

*Vietnam Field School – Giving Australian National University Undergraduates Real Research Opportunities*

This course is open to second year undergraduates from a range of disciplines. An 18-day field course focuses on the interaction between development and environmental issues in Vietnam. During a weekend of preparatory workshops students devise a learning goal statement, which is subsequently used to define their particular research interests. Small research groups are formed and proposals developed collaboratively, using online tools such as wikis. Students are also required to undertake a major research project prior to travelling to Vietnam and to share their work with students orally and through a learning management system.

In Vietnam, students spend the first week in the city of Da Nang, four days in the world heritage town of Hoi An and three nights in a rural village where they stay with local families. On their return to Da Nang, students share their preliminary research findings with each other and reflect on their personal and group experiences. A reflective learning journal is used to record the interconnections between different parts of the course, what students learn from peer presentations and their changing understandings of research throughout the course.

At the end of the course, all students are required to give a seminar on their interpersonal, intrapersonal and epistemological development. Each year the course has received very good evaluations and students have reported their participation as being a transformative learning experience. Such experiences foster the intellectual development of the students and speed their journey towards self-authorship.

*Sources and further information:*

[http://fennergchool-people.anu.edu.au/richard\\_baker/ENVS2017/students%20work/index.html](http://fennergchool-people.anu.edu.au/richard_baker/ENVS2017/students%20work/index.html)

[http://fennergchool-people.anu.edu.au/richard\\_baker/ENVS2017/resources/groupwork.html](http://fennergchool-people.anu.edu.au/richard_baker/ENVS2017/resources/groupwork.html)

*A Curriculum Designed to Facilitate a Student's Journey Toward Self-Authorship*

The geography department at Samford University recently redesigned their department's curriculum guided by goals of increasing student engagement with the discipline, improving their practical skills, and enhancing their ability to solve complex problems and engage in critical thinking. Core modules provide basic instruction, but these introductory modules incorporate case studies, problem-solving, and active engagement with the subject matter. Students then proceed through a series of elective courses and finally to a series of courses called "Geography in Practice". Here students have the option of doing a supervised externship, acting as a teaching assistant for an introductory class, or doing an independent research project.

These experiences provide students with an opportunity to link their prior coursework with practical workforce skills. Finally all students complete a capstone experience where they may either undertake a client-based project, or may elect to do a traditional research paper. With the client-based projects, students work in teams with an outside client to define a problem, devise a work plan and create some distinct output. As examples, students have produced a series of maps for a local bicycle club, worked with the university's disability services on an accessibility map of campus, and collaborated with an environmental agency to study sedimentation in a river.

All capstone students are assessed on a range of skills skills, as well as informational and quantitative literacy. As students progress through the curriculum they are expected to take increased responsibility for their own learning and to develop the intellectual skills necessary to move beyond the campus and into society.

*Sources and further information:*

<http://howard.samford.edu/geography/>

Box 5: Samford University, Alabama, USA