



## Head to the field:

### Fieldwork as a direct experience learning tool in the integrated geography course

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#### ABSTRACT

This article explores the researchers' use of fieldwork as a direct experience learning tool in an integrated geography course as a precursor of spatial courses offered in the upcoming semester. The researchers analysed the students' direct experience learning process in the field, guided by the research questions (a) what are the supporting aspects of the fieldwork course during the integrated geography course, and (b) what are the constraining aspects of the fieldwork course in relation to the achievement of course learning by students in their second year. The findings indicate that students found the fieldwork to be worthwhile but had concerns about the time spent on preparation and the study workload. The students were able to make important connections to the course content. Nevertheless, the students are also considerate of the insufficient lecturer's guidance, nature attraction, peer disturbance, and assignment workloads as the constraining elements in their learning process.

**Keywords:** *fieldwork, direct experience, integrated geography, geography in higher education.*

#### 1. INTRODUCTION

Fieldwork is promoted as an integral and powerful means of geography learning [1, 2]. Much of the current literature tends to focus on the benefits of fieldwork for the discipline at large [3-5]. Max Hope, among others, listed a number of pedagogical benefits of fieldwork include the opportunity for students to develop a range of subject-specific skills and transferable skills; promote active learning; and create opportunities to "connect theory with real experience [6]. Notwithstanding the considerable growing literature that focuses on the superiority of fieldwork in geography learning, few studies provide critiques of fieldwork as a mode of learning [1, 6, 7]. In line with this critique, in this article, we contend the claim of fieldwork benefits. We aim to address how fieldwork actually benefits the learning process of geography education students. The research questions guiding this inquiry are: what do the students think as supporting aspects of fieldwork and what aspects of fieldwork that are constraining their learning process. In corresponding to these questions, we draw on evidence from recent fieldwork in our study program under the course of Geography Landscape.

This study is in response to the growing concern that fieldwork in Geography Education programs has decreased in recent years. It is

accordingly conducted as a precursor project in maintaining that fieldwork as a powerful learning toolkit of Geographical Education [2, 8]. As part of the curriculum of the current academic year 2023/2024, the first series of fieldwork in Geography Education at State University of Surabaya is held under the Geography Landscape course. The course is offered as a compulsory course and delivered to the second-year students. The aim of this fieldwork is to provide the second-year geographical student with a tool for the integration of theory and practice in relation to landscape in the field of geography. In this course, a four-days of fieldwork is included as part of the learning process. The fieldwork took place in the province of Yogyakarta Special region representative of complete geographical landscapes lend to its proximate locations and thus time as well as cost efficiency.

#### 2. ISSUES IN DIRECT EXPERIENCE IN FIELDWORK

Fieldwork can be an effective way to implement experiential learning in geography education [9]. They are also beneficial for pre-service teachers because the experiences provide opportunities to make real work connections and engage in an authentic learning process [9]. The aim of geography education is to educate students to become geography graduates who have the

personality, intelligence, skills and knowledge of geography and its applications [10]. Students are taught concepts, theory and practise both in the laboratory and in the field to enable them to recognize, identify and measure physical and socio-economic parameters in the field and to identify sites. Notwithstanding the considerable growing literature that focuses on the superiority of fieldwork in geography learning, there are few studies that provide critiques of fieldwork as a mode of learning.

Fieldwork and field trips have a well-established track record of improving the quality of education by providing students with first-hand experience [2]. This view has major implications for the use of fieldwork. It implies that the necessary processes involved in fieldwork are often taken for granted [6, 7]. Consequently, geography fieldwork has been subject to theoretical criticism and debate [5-7, 11]. A particularly notable critique of fieldwork has been provided in the work of Karen Nairn. The central argument in her work is drawn from the work of Scott in 1992. Nairn questions the mechanism of fieldwork as 'experience' that Scott attributes to visibility as literal transparency [12]. The author challenges the notion of 'experience' as an unmediated means of gaining knowledge about work because it obscures the ideological workings of experience and knowledge [7]. Nairn notes that the ambiguity comes from the fact that the fieldwork is deliberately designed to facilitate students' direct experience of 'the landscape' and/or 'the people'.

Nairn brings forth the logocentric essentializing epistemology as her analytical tool. Further, she draws on Derrida's work in explaining the 'logocentrism' as the assumption of the unmediated presence of the truth of nature, or in this case the assumption that the truth or reality or experience in realities will be transparently available to students if they are in contact with their under-study group. Following their work, in this article we will demonstrate the ability of geography education students to learn the reality of the geography landscape.

In line with Joan Scott's critique of fieldwork, Nairn highlights two key ideas that are relevant to geographers. First is how "a metaphor of visibility as literal transparency" is a feature of reliance on the evidence of experience. Two particular words characterising the visibility are "exposure to the realities." Here, exposure means that the realities are transparent to students, unlike when they read a book about the content. The second is a reconceptualization of 'experience'. The authors concurred that experience usually depends on a referential notion of evidence which denies that it is anything but a reflection of reality. In a way, the

authors are of doubt about the true real experience. Scott and Nairn's work informs our analysis of the geography education student during the fieldwork.

### 3. COURSE CONTEXT

The geography landscape course is one of the compulsory courses in the Geography Education study program at the State University of Surabaya. The campus is located in Surabaya City, the province of East Java. Due to the characteristics of the university location, which is in the urbanised area and considered to be at a distance from the geographical landscape feature, the geographical landscape fieldwork took place in the special province of Yogyakarta. The researcher selected this field work destination in advance in order to appropriately prepare the field work arrangement. A number of 88 students from cohort 2021 enrolled in this course.

The course highlights the interrelation between the nine landforms and human activities. This course is considered as an integrated geography course. In this study, integrated geography will be used as a synonym for landscape geography. The emphasis of the course was on the teaching for understanding and investigating the interrelation between human-nature landforms in geography studies. The fieldwork is not necessarily the main focus of the course, regardless of its use as a teaching strategy. The course particularly highlights the geomorphological process of landform formation, such as volcanic, structural, fluvial, solutional, denudational, aeoline, marine, and anthropogenic processes [10]. Furthermore, it also sought to enhance students' appreciation of problem-solving methods to understand the geographical, social and economic dimensions in the perception of current global concerns, such as the spatial planning and the goal of sustainable development. These concerns are of importance in terms of the current factual issues surrounding geographical issues.

The fieldwork was designed to allow the students to have a geographical experience, to apply the theoretical and practical knowledge gained in the classroom, and to collect primary data for their assignments. The researcher incorporated experiential learning into the fieldwork in terms of field observation and measurement, as well as conducting interviews in one of the local lodgings during the four- days of fieldwork. On each fieldwork day, the students recorded their field observations and measurements in a fieldwork checklist form. For the interview activity, the students administered the questions to the accommodation they were assigned to. The accommodation arrangement was organised by a field coordinator in Nglanggeran village, one of

the sites of the fieldwork destination. The following are the fieldwork learning activities:

Field work day 1: the students visited the volcanic landforms in the regency of Sleman

Field work day 2: the students visited the solutional and fluvial morphogenesis landforms in the regency of Gunungkidul

Field work day 3: the students visited the aeoline, and marine landforms in the regency of Bantul

Fieldwork day 4: the students visited Opak-Oyo river in the regency of Bantul

In addition to the field observation and measurements, the students were required to conduct an interview each in their accommodation whenever it was possible to do so. They could visit other community members in the village, cultural centre or monumental sites nearby the field location. The students were encouraged to hold an interview to learn about the impact of the community's geographical landscape feature on their everyday activities. Some of the students' groups were able to conduct interviews not only with the accommodation owner but also with some locals around the visited sites.

#### 4. RESEARCH METHOD

This study is a precursor of future fieldwork that is planned to be part of the new academic year at the Geography Education study program of the State University of Surabaya. It follows a case-study design. This study focuses on the student's experiences in the integrated geography course. This course uses fieldwork as a learning method rather than as the sole focus of discussion. The course typically lasts 16 weeks. The fieldwork itself takes place in the sixth week, of which four days of fieldwork to special areas of Yogyakarta Province. Prior to the field visit, students explore the geography landscape features through lectures as well as individual assignments. The individual assignment required students to make a physiography unit map.

The participants constituted a sample of convenience and consisted of students enrolled in the geographical landscape course. All of the students were found to have never joined fieldwork prior to the geographical landscape course. They participated in the fieldwork as part of the course requirement.

We used the qualitative method in the data collection. This includes field observation and focus group discussion. In addition, we carried out an analysis of the student's coursework, including the video, poster and infographic they had produced. Each student was informed that their responses solely served the study purpose and their personal information is confidential. They are asked for their

consent. This preliminary study focused on students' responses in a focus group discussion (FGD) to answer the research questions.

#### 5. FINDINGS

This research involved 52 of the 88 students in the 2021 cohort. The students who took part in this study were predominantly young, aged between 19 and 22. They are all enrolled in a geography education programme. Seventy percent of the students were female. While in terms of prior fieldwork experience, the vast majority of the students had not participated in fieldwork as part of their education career in their senior high school years nor initial academic year as university students. Accordingly, only three students reported that they had participated in fieldwork before.

Overall, the geography students reported both supporting and constraining concerns of fieldwork in their learning process. The supporting aspects include the opportunity to develop a range of direct experiences, affective responses and understanding. While several constraining concerns of fieldwork include the insufficient lecturer guidance, nature attraction, peer disturbance, and assignment workloads. In addition, students have mixed perceptions concerning the students' assignment workload.

##### 5.1. *The supporting elements of fieldwork*

*Maintain direct experience*, according to the open questions distributed through the questionnaires and focus group discussions two particular advantages of participating in the fieldwork are gaining more understanding and knowledge regarding the course subjects, getting more acquainted with classmates and lecturers, as well as refreshing activity. Below are several exemplary quotes that illustrate the advantage of participating in the fieldwork according to the geography education students:

*I find that the fieldwork has exposed me to a more complex reality than what I could have learned in class, especially in relation to community activities. Through the fieldwork, I could see that it is impossible to get a full understanding of the course without it. (Focus Group Discussion, 31 July 2023)*

This statement suggests that fieldwork filled a gap in knowledge for this student regarding their exposure to the geography landscape and nature in the field. Another interesting fact is that the students

find a subject-specific explanation that enlightens their learning process. The student was being able to distinguish between two types of stone made from limestone in the field.

*The fieldwork has allowed me to see in real the material that was lectured in the class. I could see the uniqueness of the materials. For example, in the classroom, we were talking about dolomite and limestone. It was quite confusing for me when we discussed it in class because they look similar. But, thanks to the <sup>1</sup>Pak E explanation now I know how to differentiate the two of them. Well, they can be distinguished by their hardness. And the colour of the stone changes if you pour HCl on it (Focus Group Discussion, 31 July 2023).*

The student's comment above resonates with 'othering' implications. Otherness is seen as an attitude constructed by the mind of the observer. There is implicit meaning that refers to something different from the familiar and everyday norm, a perceived 'them' that is different from us [13]. In the learning process, it is the othering process that helps to surface the spectra of the affective power of immersion in a field situation [14].

*For me, apart from learning through the field realities, the fieldwork is also refreshing. You know that classroom activities are often too boring. In my opinion, this fieldwork is a good alternative for learning activities (Focus Group Discussion, 31 July 2023)*

The quote illustrates how this fieldwork has been beneficial to the student as an alternative means of learning in the midst of face-to-face meetings in the classroom. When students are exposed to the field realities, that are out of the ordinary classroom interaction, they can gain an-in-depth subject-specific knowledge in the field. In terms of interactions outside of class, the majority of students agreed that their interactions with fellow students and lecturers had improved.

*In fact, the fieldwork allows me to get to know my other classmates better than before. This was not really possible when we just stayed in class. This is because we were*

*usually not in the same class (Focus Group Discussion, 31 July 2023).*

The comment above suggests that the fieldwork creates an out-of-ordinary social interaction among the students of the 2021 cohort. The cohort of these students is divided into three different classes (A, B, C) due to the large number of students. They often do not see each other on a regular basis, as each class has a different timetable during the semester program. Thus, they saw fieldwork as a social event that supported their learning process.

*Indeed, apart from getting closer to my peers or classmates, the fieldwork has also allowed me to get to know our lecturer better than when we are in the classroom. In the field, we can pose questions freely and then get feedback from the lecturer right away (Focus Group Discussion, 31 July 2023).*

This student sees that social interaction is extended to the interaction between him and the lecturers. The informal situation in the field creates a sense of intimacy. Students see the lecturer as a part of ordinary people, regardless of their academic performance. This, in turn, allows the students to ask the lecturer questions in a loose way.

*Yes, I agree with the other about the role of the lecturer in helping me to understand the phenomena. For example, when I asked Pak B about andosols. He explained it clearly in terms of its texture and colour and why it is from fertile soil. [...] I also admired other lecturers, I mean when we were in the homestay where we stayed overnight, I witnessed Pak F, who had a Ph.D., humble himself as he faced the elders of the house. It touched me to see how a person with a Ph.D. could pay so much respect to the elders (Focus Group Discussion, 31 July 2023).*

Taken together, the quotes suggest that Geography students appreciate the opportunity to experience something different when learning. Students also explained that observing and measuring during fieldwork helped them to understand more about learning.

## **5.2. Constraining aspects of the fieldwork**

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<sup>1</sup> Pak is a common way of addressing a man in Indonesia. The use of Pak is similar to "Mr" or "Sir" in English

While experiencing positive impacts on fieldwork, students also reported some concerns that constrained the learning process. Such constraints are regarding the lecturer's guidance, students' assignments, peer disturbance and onsite attraction.

*Minimal guidance from the lecturer.* Minimal guidance from the lecturer. One of the elements of fieldwork is the role of the lecturer in terms of guidance. Students value the lecturer guiding and explaining the object they have visited. Thus, if there was no explanation from the lecturer about the geographical landscape that they visited, the students would think that there is a lack of clarification.

*I felt lost when we were in Parangtritis. We had minimal guidance from the lecturer. I thought that the activities in Parangtritis were not particularly the same as in other places we visited, where we made some measurements and observations. In Parangtritis, we were too loose. As a consequence, we had trouble finding the pictures and materials we really needed for our assignment (Focus Group Discussion, 31 July 2023).*

This comment highlights that the urgent need of students for the lecturer's guidance is that in terms of working on their assignments. The minimal guidance from the lecturer in one of the locations (Parangtritis coastal area) is thought to be the reason why the students could not work on their assignments well. In terms of the assignment, the students were asked to produce several outputs from their fieldwork in the form of a video, a poster, and an infographic. This given assignment was in response to the project-based learning model currently being implemented in our campus curriculum. In turn, these student project outcomes are intended to be registered in the national student competition programme. In addition, other students explain that another reason for them not being able to do the assigned work is due to the procedural steps of registering the results on the Indonesia Education Ministry website.

*As for the assignments, it was quite a hassle to complete them. Especially when we were asked to submit our videos or infographics to the student competition programs. This was especially the case for the submission of registration forms with the signature of the lecturer. We could not do it sooner as you still have to wait for their approval. (Focus Group Discussion, 31 July 2023)*

*Students' workload assignment.* The above comment suggests that the minimal guidance provided by the lecturers was extended after the fieldwork. That is, in terms of completing the students' assignments. As the students have to follow the registration process on the Indonesian Ministry of Education website, where one of the requirements is to get the lecturer's signature on their work proposals, it is rather cumbersome. The students feel that the fact that they have to collect the lecturer's signature is burdensome as they cannot see the lecturers around the campus, especially during the work submission date. In addition, other students also mentioned that they were confused about the task they were given.

*Something that my classmate and I found difficult was that the task we were given was not specific from the beginning. So, we had to be able to find pictures on the internet that represented our chosen field. Well, it was okay, but it was not that easy to find (Focus Group Discussion, 31 July 2023).*

*Peer disturbance.* When it comes to the constraints of the fieldwork learning process, some students also agreed that, apart from the minimal guidance from lecturers and the workload they were given, there was also disruption from peers.

*Well, I think when we were in Parangtritis coastal areas, it was not because of the minimal guidance from the lecturer. I saw myself that it was our classmates who were not focused enough to be lectured. We were already distracted by the view of the cost (Focus Group Discussion, 31 July 2023).*

The comments above suggest that another reason for limiting students' fieldwork experience is that their peers were attracted to the nature they witnessed. One particular student also explained that the reason she could not concentrate well when they were in the coastal area of Parangtritis was because she was overheated when the group arrived in broad daylight.

*When I was in ParangTritis, I think I was one of those students who could not focus well. It was because we were there at the very noon of the day (Focus Group Discussion, 31 July 2023).*

This student notes the time frame as an element that affects the learning process in the fieldwork. As the fieldwork is a four-day trip with a full schedule of destinations, it has been a drain on

their energy. Another student added that the fact that the fieldwork had many stops in one day made him too tired to focus on the explanation by the lecturer in the field.

*I may not be the only one, but I think the fact that we had to visit so many places in four days was quite tiring. It made it difficult for us to concentrate on any particular point as we had to move quickly from one place to another (Focus Group Discussion, 31 July 2023).*

Having identified the supporting and constraining of fieldwork, several students are found to experience continuity in their opinions of fieldwork activities. The contact with reality enables the student to participate critically and with solidarity in the community, to make decisions that contribute to solving the problems of the local territory. The meaningful learning of fieldwork procedures is a powerful tool for the scientific training of geographers and also contributes to the transformation of the student into a well-educated citizen.

*In my case, I learned something rather worrying. Especially when I was in Kali Suci. I saw how much this place means to the community around it. Kali Suci is rich in groundwater resources. But it was so sad to see this river being polluted. I felt that as a young generation, I have to do something about it. I want to be able to solve this environmental problem (Focus Group Discussion, 31 July 2023).*

This quote suggests that critical thinking was encouraged in the students' thinking through the opportunity to observe the place during fieldwork. As the students witnessed the existing waste at the Kalisuci site, the view has raised their awareness of the threat to the water quality that the population whose homes are passed by the river stream in general and the locals around the site consume in particular.

*As far as the tasks are concerned, I might disagree with the others. I found that although the task was quite demanding. In the process of working on the task, I felt motivated, like I wanted to be able to do the task well, that is to win the competition. I also found that although we were required to do the task, we also received valuable support to help us do the task correctly. For*

*example, Bu L<sup>2</sup> gave us feedback that made our text good (Focus Group Discussion, 31 July 2023).*

The overall findings suggest that fieldwork, as a form of direct learning, has impacted on students in different ways. Although most students consider that fieldwork supports their learning process, others are not unaware of the existing constraints of fieldwork. Irrespective of these two aspects, there are also notable comments from students that the fieldwork, together with its assignment, has opened up a new dimension of learning in the course of their studies, namely personal development.

## 6. DISCUSSION

In the process of asking students to describe their experiences during the fieldwork, we got a glimpse of the ideological workings that underpinned some students' experiences and how these were being (un)mediated by 'others' in the acquisition of knowledge. Knowledge is gained through vision. Vision is a direct, unmediated apprehension of a world of transparent objects [12]. In geography learning, fieldwork is considered as a form of direct learning [5, 7]. This direct learning resonates with Kolb's experiential learning [9, 15]. Learning, therefore, cannot occur without experience [15].

The findings indicate that the second-year student of the Geography Education study program found the fieldwork is advantageous in the learning process with some notes of considerations as well as areas of continuity. In order to support the student's achievement in the learning process is arguably affirming the importance of Kolb's experiential learning theory [15]. In terms of Project Based Learning (PjBL), the task given to the students should involve the active participation of the students and the presentation of their learning outcomes in different ways [16]. In line with previous research, the direct experience in the form of fieldwork is well received by the students [17-19]. It is to these claims that we now turn.

The findings suggest that direct learning in the fieldwork supports the student's learning process. Connectedness to the real-world realities, including physical and human geography aspects, has positively supported their learning process in the context of integrated geography understanding. Kolb's four-stage experiential learning model,

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<sup>2</sup> Bu is a common way of addressing a man in Indonesia. The use of Pak is similar to "Mam" or "Madam" in English.

concrete experience, reflective observation, abstract conceptualisation, and active experimentation, illuminates the prominence of the concrete experience stage in the student's learning process. The student's activity of measuring and observing in order to comprehend the physical geography topics, namely differentiating limestone and soil types, as the two students as mentioned in earlier comments respectively are evidence. Regarding the social geography topics, the students' direct interaction with the community has enhanced their understanding of the long-standing cultural tradition. These findings relate to what Morris described as a highly contextualised, primary experience, which involves the hands-on experience of the learner in an uncontrived real-world situation, and which he referred to as *concrete experience* [15].

Students also expressed concern that some limiting factors affect their learning process in the field. That in some way the existing concerns contributed to their difficulty in completing their assignment for the course. According to Nairn, the fieldwork approach to geography education needs to be interrogated. To consider that what we believe to be the function of a particular strategy may have quite different effects from what we might expect [7]. The particular role of the lecturer in transferring knowledge to students has been criticised in terms of the student-centred approach to learning. Nevertheless, the findings of this study imply that teacher-centred learning in direct experience is important. The lecturer still has a prominent role in the transfer of knowledge. This is not to say that the fieldwork has not served its purpose in terms of facilitating the autonomous learning of the students. It is to say that conducting a fieldwork without lecturer guidance is an incomplete process. Therefore, it is crucial to consider how to best balance the proportion of student-centred learning and teacher-guided learning.

The most notable finding is that some students were able to recognise some areas of continuity in their learning process. The students articulated how the task they received from the lecturer, which started as an imposing task, turned into a conducive environment that fostered their creative skills resonates with [20] and [21] works. We argue that this process is compatible with Anderson and Erskine's lens of *Tropholia* that is discussed by Mark Holton [18]. In order to move, learners need to be stimulated and challenged in their relation to place. In a way, the given assignments and the required outcomes are a form of stimulation that encourage students to connect what they have learned in the class and the phenomena of integrated geography in the field.

Going back to Nairn's explanation of two key ideas of visibility in direct learning that are relevant to geographers, i.e., literal transparency and reconceptualization of 'experience', the fieldwork in this research tends to hold the established direct learning as a model of learning. In this way, the student's experience of witnessing geographical phenomena is drawn upon in a metaphor of visibility as literal transparency. This is particularly justified in terms of the physical geography investigation, such as limestone and soil type. However, when exploring the social geography aspect of the themes, particularly the socio-economic aspect as well as the community tradition, the reconceptualization of 'experience' in students' perceptions in this study is to be enhanced rather than reinforced. This can be explained by the fact that the students and the community they are in contact with share a common cultural background as a Javanese community. It can therefore be said that the logocentric approach to integrated geography learning is not going to disappear in the near future.

Fieldwork affects students in different ways. As [9] warned: "According to social standards, it is crucial that future teachers have knowledge and appreciation of perceptions that are different from their own. The Geography Education study program at our university is positioned within the social sciences cluster. Thereby, as a prospective geography teacher, the students are trained to be able to identify and alternate perspectives. Having notified the diversity in the student's perspective is considered to be part of the inclusive education process.

## 7. CONCLUSION

The use of fieldwork as a direct experience as a learning tool remains salient. From this research, we find out that fieldwork has a range of beneficial impacts on students' learning as well as concerning elements. Thereby, though it is safe to say fieldwork remains a powerful learning tool in integrated geography learning, it is imperative to consider that students are at the various levels in their learning processes. Fieldwork affects students in different ways.

## AUTHORS CONTRIBUTION

The authors confirm their contribution to the paper as follows: Nugroho Hari Purnomo and Bambang Hariyanto: served as study conception and design; Sukma Perdana Prasetya and Eko Budiyo served as scientific advisors; Lidya Lestari Sitohang and



Aida Kurniawati critically reviewed the study proposal and draft

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