



## **IUCN ACADEMY OF ENVIRONMENTAL LAW TRAINING THE TEACHERS PROJECT**

### **EXPLANATION OF TEACHING METHODOLOGIES**

#### **INTRODUCTION**

The teaching of environmental law offers the opportunity to incorporate a wide range of teaching methodologies for the purpose of enhancing both student learning and enjoyment. This document briefly explains each of the main teaching methodologies that are demonstrated in this course. It also discusses, as a preliminary consideration, the various formats in which teaching is commonly pursued, which may be dictated by external factors such as the number of students enrolled in a class. It therefore provides a reference guide when designing an environmental law course. The essential point is that a consideration of formats and teaching methodologies should be regarded as a fundamental element of course design, not an optional addition.

#### **PART ONE: TEACHING FORMATS**

University-level teaching, including in the discipline of law, has been centred historically on two formats: the lecture and small discussion groups, often in the form of a tutorial tightly controlled by a teacher. However, other formats have evolved in recent decades which allow for greater student participation within the class-room, in particular seminars and the use of small discussion groups. Very recently, developments in technology have enabled the use of new and creative methods of teaching such as the flipped classroom.

The choice of teaching format when designing an environmental law course may be dictated to some extent by factors over which the teacher has little or no control. First and foremost, the number of students enrolled may necessitate the use of lectures, rather than dividing the class into seminar groups or running tutorials or small discussion groups alongside lectures. The number of enrolments in an environmental law course in turn may depend on whether the subject is treated as an elective or compulsory unit. Choice of format may also depend on whether there are supporting teaching resources available to the course leader to help run smaller groups alongside lectures.

In most instances, environmental law is an elective subject taught by one person to classes of a size that is less than in the common core subjects within the law curriculum. As such, and taking into account also its particular subject-matter, it lends itself to innovation in the choice of both teaching formats and methodologies. But even where a course attracts a relatively large number of enrolments, there are options with respect to the choice of teaching methodologies that can be considered as means of enhancing the learning experience of students. Hereunder, a short explanation of teaching format options is followed by a description of various methodologies that may be employed in conjunction with some or all of these formats.

## **Format A: Lectures (discussed in Session 14)**

The concept of a learned teacher imparting knowledge to students through the delivery of a lecture is deeply entrenched in university education and can be traced back over many centuries and across diverse cultures. It continues to provide an efficient method of delivering education to large numbers of students in a relatively limited time-frame.

With the advent of modern technology, it has become commonplace for lectures to be made available to students by video or online so that it is not necessary for them to attend its actual delivery. With the increase in the offering by universities of “distance” learning courses to external students who do not attend classes in person, the recording of lectures has become even more commonplace.

For the student, the lecture is predominantly a passive learning experience that requires further active follow up by way of reading and reflection. Where resources permit, it will usually be supported by small-group learning activity such as tutorials or seminars. Nevertheless, there are methodologies which can be employed in connection with the delivery of lectures that can serve to provide some variety on the basic format and enhance the learning experience for students. These are described below under the heading of “teacher based” methodologies.

The quality of a lecture is ultimately determined by the knowledge of the lecturer and their skill in passing on that knowledge. It requires careful preparation and a capacity to communicate to a larger audience clearly and engagingly that is generally acquired only with experience. The use of aids in the lecture such as slides that provide a summary of the lecture content can be helpful to students in terms of following the overall structure of the lecture and capturing references cited during a lecturer, but cannot substitute for the clarity and engagement that are the hallmarks of good lecturing.

## **Format B: Tutorials (Session 5)**

Tutorial classes are normally conducted in conjunction with and after a lecture or large class. The time set for a tutorial is usually no more than one hour. The tutorial provides more opportunities for questions and discussion than is normally available in the lecture room. It is usually based on a pre-set problem with the tutor posing questions to the tutorial group or to individual students within the group. Elements of a tutorial process include the following:

1. The main class group is divided into tutorial groups, ideally of between 6-10 students, but the number may range up to about 15 students. .
2. The topics covered in the tutorial should be consistent with and allow for expansion of topics covered in a preceding lecture,
3. Readings chosen by the lecturer are notified to the students beforehand. This can be done by distributing paper copies or via email.
4. Problem-based questions are set by the lecturer before the tutorial commences.
5. A class participation mark can be set, which can then be used as part of the overall assessment of the course. A class participation mark, if used, should be between no less than 10% and no more than 30%. If a class participation mark is used, the lecturer must ensure that adequate opportunities are given for all students to participate in the discussion. This includes inviting quieter students to participate, and indicating when more enthusiastic students have had sufficient time to participate. The lecturer may also indicate to a tutorial group that each student has the responsibility to allow others to participate, and that they should be careful not to dominate the discussion.

### **Format C: Seminars (Session 14)**

A seminar is normally understood as being an alternative to a lecture or tutorial and can be regarded as a combination of the two. In many law schools, students are given the option of taking one or more subjects entirely in a seminar format. Seminars usually involve small numbers of student, anywhere between 15 to 30 students. The format of seminars varies considerably between universities and faculties. The following guidelines can be noted for use in seminars in both undergraduate and, commonly, postgraduate environmental law courses:

1. Seminars are often directed to specialist aspects of environmental law.
2. In a typical 12 to 14 week environmental law course taught in a seminar format, topics and reading should be prepared at least one month before the scheduled commencement of the course.
3. A class participation mark can be imposed as part of the assessment scheme for a seminar-based course. The mark should be no less than 10% and no more than 30%.
4. Where a class assessment mark is used, students can be assessed on their overall level of discussion, or on oral presentations that they are asked to give, or volunteer to give.
5. In seminars where students give presentations on specific topics within the course, lecturers should normally discuss the scope of the topic with the student and ask them to prepare a written outline for distribution to the seminar class. This can be done beforehand by email as appropriate.

### **Format D: Small discussion groups (demonstrated in several sessions – see methodology 11A below)**

Small-group discussion methods can be used both within large lecture classes as well as in smaller lecture classes and seminars. The aim of small-group discussion methods is to encourage students to articulate their ideas and to become more confident in offering comments or arguments by allowing them to do so in a less formidable context. Many students are reluctant to speak in larger classes, and this is one way to encourage them to engage verbally in their learning process. The basic philosophy is that intensive discussion of particular questions will assist the learning process. If students know that they are expected to regularly speak in small group exercises, they will also be encouraged to read the materials more intensively. The depth of student learning is therefore enhanced.

The following approach to small group discussions can be used:

1. Divide the class into groups of five to six students
2. Give each group a question, for discussion. The question should be based on lecture material that has already been delivered or articles, legislation or other material that has been set for required reading for the class.
3. Instruct the groups to choose from within their ranks a reporter, who will take notes of the discussion and any conclusions drawn by the group.
4. Instruct the groups to ensure that all participants have an opportunity to speak.
5. Depending on the complexity of the question, specify between five and 15 minutes for the small-group discussion.
6. At the end of the discussion period, the class should come back into plenary session, and the reporter from each group should be asked to give a short report to the plenary group.

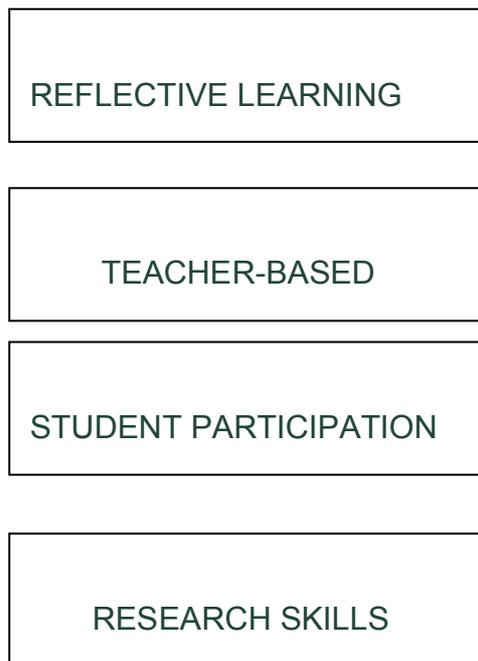
7. When the reporters have finished their reports, the teacher should invite the other members of each group to add any further comments.
8. Where appropriate, the teacher should then encourage a debate about specific points of disagreement.

**Format E: Flipped classrooms (discussed in Session 14)**

The flipped classroom is becoming very popular in some countries. Environmental law particularly lends itself to the flipped classroom format because its content is particularly suited to learning via student participation, rather than from lectures. Students are required to come to class prepared for an in-depth discussion of the weekly topic. Their preparation can take a number of forms. Two of the more common are doing some set reading or listening to a lecture online. The flipped classroom approach is most effectively employed in custom built classrooms where students sit at a group table and engage together in tasks set by the teacher. They are able to project work contained on their own computer screen on a wall, and the lecturer is able to duplicate their work onto all student screens. Each table has at least one computer and all students are able to connect their own laptop into the system. Obviously, this teaching format is only feasible where there are teaching facilities that have the necessary technological infrastructure to enable its operation and it is therefore unlikely to be an option in law schools in many parts of the world where such resources are not affordable.

## PART TWO: TEACHING METHODOLOGIES

Most environmental law teaching occurs in the lecture, tutorial or seminar formats, each of which lends itself to the adoption of the various teaching methodologies outlined below. This summary divides the methodologies into four groups according to the type of learning methodology that they employ. The TTT course will demonstrate a different particular methodology in each session and also show how each methodology can be used across the various teaching formats.



### REFLECTIVE LEARNING

#### **Methodology 1 - Use of a Reflective Journal (Session 1)**

A reflective journal is similar to a diary. It can be prepared by students at the end of each class in order to record the main learning outcomes they have discerned. It can also include any questions that the student may have, which can be discussed at the next class.

Depending on the particular class and how it is conducted by the lecturer, the reflective journal headings could include headings such as these:

1. The main issues discussed today were:
2. I made the following comments in class:
3. I asked the following questions in class:
4. I answered the following questions from the lecturer:
5. I had difficulty understanding the following issues:
6. I will research the following issues before the next class:
7. I will discuss the following issues with my classmates before the next class:

8. I will ask the lecturer to clarify the following issues in the next class:

**For this course**, it is suggested that a reflective journal be used to produce entries on each of the 20 sessions of the TTT programme. In order to facilitate this process, one page per day has been allocated in the Reflective Journal document provided to participants. We ask you to briefly record your impressions for each session and to make notes concerning the relevance of the content to your own teaching. It is particularly desirable for participants to include a brief entry at the end of each session on their impressions of the particular teaching methodology that was demonstrated in that session.

The Journal can then be used by participants to assist them in contributing to evaluative discussions on Days 4 and 5 of this course. It can also be used to assist their preparation of the written course evaluation and in the plenary discussion of the course in the closing session.

### **Methodology 2: Field trips (Sessions 15 & 16)**

Field trips are widely recognised as one of the strongest teaching methodologies in environmental law. They can last between an hour and a week. In some universities, they may constitute the whole or a significant part of an environmental law course. The rationale for conducting field trips is to expand the experience and understanding of the students concerning legal aspects of environmental issues that are addressed in the course.

The **organisation** of a field trip requires considerable planning, particularly to ensure that logistical and safety matters have been fully addressed. Appropriate arrangements for transport, sustenance and (for longer trips) accommodation, must be made well in advance.

From a **safety** perspective, it is important to ensure first aid equipment is taken on the field trip. If the field trip includes an industrial facility, the relevant manager within the company must always be contacted well in advance to arrange all aspects of the visit to the facility. There must always be an emphasis on student safety when visiting an industrial facility, in order to minimise the risk of injury and liability. Ideally, literature about the facility should be distributed beforehand to students, including an explanation of the need for them to bring boots, hats, sunscreen, etc. Where necessary, arrangements should be made with the facility being visited for the provision of safety glasses, helmets or other protective equipment.

Field trips leaders often include, in addition to the lecturer, a **local guide** with specialist knowledge of the site or area to be visited and the environmental issues related to it. The guide can be from the relevant government environmental agency or from a non-government organisation that has been particularly involved with the relevant environmental issue. If a natural area is to be visited, it can be helpful to invite a natural scientist to help guide the field trip with the lecturer.

In selecting **targets** for a field trip, it is important to be aware of any political or industry-based sensitivities that may exist, particularly if this means that there may be a lack of cooperation from such parties in relation to providing access to a site or some commentary. It is often easier to set up a field trip to an area or site where a serious environmental problem already is being addressed, rather than to investigate an issue that is still contentious and sensitive in various ways. But it is also important to avoid treating a field trip as simply a "tourist" exercise to an area of natural and/or cultural value, and where no prominent issues related to implementation and enforcement of relevant environmental laws are involved.

The following additional points can be noted in relation to achieving the **desired learning outcomes** from a field trip:

1. If a field trip is to be conducted, it should be made centrally relevant to the scope of the course, as part of the learning process. Students should be given a clear explanation in advance of how the field trip relates to the environmental law course as a whole.
2. The field trip must be carefully designed, with adequate documentation distributed to students beforehand to ensure that they understand the subject-matter of the field trip. This documentation can include, as appropriate:
  - a. a map of the area or industrial facility to be visited
  - b. scientific information, such as extracts from an environmental impact statement or government report concerning the area or industrial facility to be visited
  - c. a list of the relevant laws applicable to the area or industrial facility to be visited

After the completion of the field trip, it is most important to conduct a **de-briefing discussion** with the class in which the students are asked to reflect on what they have observed during the field trip and to consider the learnings that may be gained with respect to identifying relevant environmental laws and evaluating their effectiveness with respect to implementation and enforcement. Beyond the legal dimension, the field trip participants should also be able to better understand the economic, social and scientific dimensions of the environmental issue that they have examined through the field trip.

### **Methodology 3: Provision of written feedback on assignments (discussed in Session 17)**

The provision of adequate feedback is an essential part of the assessment process. There are two types of feedback: “summative” and “formative.” Summative feedback tells students how they have performed upon reaching an end point, such as the end of a class or course. Formative feedback tells students what they are doing right and what they need to improve before the end point is reached. Formative feedback is often more informal than summative feedback. Good feedback systems should be formative rather than summative (adapted from <http://www.wpi.edu/Academics/ATC/Collaboratory/Idea/feedback.html>).

The basic idea is to provide *constructive, positive* feedback rather than *negative* feedback to students, so as to ensure that basic mistakes and misinterpretations are corrected and in order to encourage students to study the subject more intensively.

### **Methodology 4: Constructive feed-back in tutorials and small discussion groups (Session 8)**

During tutorials and small group structured discussion exercises (see methods 10 and 11A below), constructive feedback can be given by the lecturer (and also by the students themselves) on particular points raised by individual students. This method allows for the logical development of ideas and the collective understanding of concepts in a way that encourages maximum participation and the building of student confidence in being involved in class discussions.

## TEACHER-BASED

### **Methodology 5: Use of a guest lecturer in the classroom (Session 9)**

Guest lecturers should generally only be used when they can provide expertise additional to that of the lecturer. In the environmental law field, guest lecturers with special expertise in a particular area of environmental law should be invited. In addition, experts from other disciplines, such as science, sociology, philosophy or history can be invited to give contextual insights into the environmental issue or subject being taught. Further, guest lecturers from government departments, the judiciary and the private sector often give classes in environmental law courses. When arranging for a guest lecturer, care should be taken to ensure that he or she has an outline of the course, and precise instructions as to what subject matter should be addressed.

### **Methodology 6: Case studies (Sessions 4 & 11)**

The lecturer can develop a range of case studies concerning specific environmental law issues. For example, cases concerning environmental impact assessment, biodiversity conservation or water pollution could be used. If there are judgments available that are relevant to the subject matter, the facts and law in those judgments also can be used. Alternatively, lecturers can develop fictional case studies that include particular issues relevant to the current segment of the course for class discussion. Such case studies should include a detailed fact situation with an indication of the relevant law and policy used. Such case studies need to be fully developed by the lecturer in writing and preferably distributed at least a week before the class.

### **Methodology 7: Comparative law (Session 9)**

The use of comparative approaches by a lecturer is an important means of enabling students to understanding the different ways in which various jurisdictions address environmental law issues. The comparative approach can involve macro and micro comparisons. The macro approach can include the environmental, natural resources, economic, cultural and social context, and the constitutional, political and institutional background. The micro comparisons can include a comparative analysis of the relevant legislation and regulatory framework. This can involve comparisons of legislative objectives, definitions, institutional arrangements, management plans, environment protection mechanisms, planning regimes etc. Comparative analysis may involve looking at approaches in other countries or, particularly in federal systems, in other jurisdictions (state and/or federal) within a country.

### **Methodology 8: Use of films/videos (Sessions 2A & 6)**

There is now a wide variety of film material available relating to environmental law and policy, especially from the Internet. Lecturers should be careful in choosing film material to ensure that it sufficiently addresses the matters that are being discussed within the environmental law class. After showing the film, the lecturer should lead a discussion on how the material is relevant to the class, perhaps using a structured discussion methodology (see Methodology 11 below). Sometimes films can be quite confronting for the students. This presents an opportunity for a reflective entry in student journals.

### **Methodology 9: Use of electronic resources (Session 14)**

The capacity to make use of electronic resources in the class-room, in particular as a component of a lecture or seminar, depends on the technical facilities that are available within the class-room. These will obviously vary according to the capacity of universities to fund the provision of such resources. Where it is possible to access the internet within a

classroom and to display material from the internet on a screen, the opportunity arises to enhance a lecture or seminar by referring to such material during the class.

The types of resources to which reference can be made by such means include legislation and cases available via electronic data-bases, and similarly, environmental policy instruments promulgated by governments and available from government web-sites. It may also be possible to use Skype or other means to allow guest lecturers to contribute to all or part of a course. Short films or documentaries may also be able to be accessed via the internet and shown during a class.

## STUDENT-CENTRED

### **Methodology 10: Small-group drafting activity and report back (Session 3)**

This activity can involve a number of drafting exercises, including, for example:

- the preparation of drafting instructions for new legislation
- the drafting of a set of objectives for new legislation
- the drafting of a set of definitions for legislation

For this course, the small-group drafting activity involves drafting a definition of the word “environment” for insertion into national legislation concerning environmental protection. It should be explained to participants that the exercise demonstrates that the definition of a particular word or concept indicates the scope of the legislation; a narrow definition, for example, of “environment” or “natural resources” limits the scope of the legislation. A broad definition allows for a wider application of the legislation.

### **Methodology 11: Structured discussion**

Structured class discussion should be based on specific points that the lecturer wants to have debated. It can be very useful when students are not particularly responsive to questions or are reluctant to participate. Structured discussions are often utilised in small groups but also can be used in a lecture format.

### **11A: Small-group structured discussion and report back (Sessions 2B, 4-7, 9, 10 and 17)**

One of the simplest and most effective means of engaging students in learning is to divide a class into small groups for the purpose of a structured discussion of a particular issue. Whilst it may be sufficient to simply allow the discussion to occur within the groups (see Session 3), it is often preferable to receive a report back from each group on their discussions via a designated member of each group (see Sessions 2B and 4-7). This process can be supplemented by a full class open-ended discussion of matters raised by the groups in their reports back. In this TTT course, we employ this methodology on a number of occasions, particularly in the earlier sessions where the various components of environmental law are being described by presenters.

### **11B: Full class structured discussion (Sessions 12 and 16)**

A variety of methods can be used to ensure that discussion within a full class (during a lecture or seminar) is well structured. For example, the lecturer can distribute reading material with a specific set of questions attached, for which students are asked to make notes on before the class, so that they can be ready to discuss the issues within the class.

Alternatively, the questions or discussion points can be generated within the class and placed in a Power Point slide by the teacher during the class.

### **Methodology 12: "Free form" discussion (Sessions 3, 6, 19 and 20)**

Free-form class discussion involves points raised by the lecturer and any of the students which are relevant to the subject matter of the course. Often, such discussion can be based on daily newspaper articles, weekly journal articles or television programmes or from environmental issues arising from the city or region which are relevant to the course. Students should be encouraged to read daily newspapers and weekly journals, and bring relevant material to class for discussion as appropriate.

Students can be asked to formulate their own discussion points. The free-form discussion allows students to discuss the points in the group, or to discuss the points one to one, or in smaller groups, prior to coming back to the main group. The free-form method allows students to impose their own discipline on their interactions, in order to come up with new insights and further questions.

### **Methodology 12: Brainstorming and report back (Session 8)**

Brainstorming refers to the process by which the class as a whole, or smaller groups, can use computers or whiteboards to generate a range of ideas on a particular topic. If the whole class is participating in plenary, either the lecturer or a student volunteer can lead to the discussion, with another student or several students preparing notes on a Power Point or whiteboard. The method can also be used in smaller groups, for example dividing the class into two or three groups, with a discussion leader and reporter appointed for each group. The idea is to generate discussion topics relevant to the theme of the class, conduct an intensive discussion and then to compare the results in a plenary session towards the end of the class.

## RESEARCH SKILLS

### **Methodology 13: Guided research exercise (Sessions 13 and 18)**

A guided research exercise can take a number of forms. This methodology is particularly useful, for example, in an international environmental law class for following how a multilateral environmental agreement (MEA) has been implemented domestically. An exercise can be prepared on the implementation of a MEA such as the Convention on Biological Diversity or the United Nations Framework Convention on Climate Change. For such an exercise, access to the internet is highly desirable within the classroom. Suggested specific points can include the following:

1. The history of the negotiation of the Convention
2. The number of parties required for entry into force
3. The date of ratification of the Convention
4. The scope and objectives of the Convention
5. Interpretation of key definitions in the Convention
6. The processes of implementation of the Convention at national level, and, where appropriate, the sub-national (provincial or state) level
7. The national procedure for ratification
  - a. What legislation has been enacted as a result of ratification
  - b. What administrative arrangements have been put into place as a result of the implementing legislation
  - c. What are the key provisions of this legislation?

8. The success of the implementation of the Convention in the particular jurisdiction. In other words, how successful has the Convention been at national level in addressing the actual environmental issue?

Such an exercise can also be prepared in writing by the lecturer, and distributed at the end of a class, with the instruction that the students shall prepare the answers between classes for presentation and discussion at the next class.

#### **Methodology 14: Role-play exercise (Sessions 7 & 12)**

In a role play exercise, each group should be asked to represent a different set of interests within a fact situation. If it is a mediation exercise, the same groups can be used to represent the different interests, but with the addition of the use of a mediator. If it is a negotiation exercise, each group can be asked to negotiate with the other groups to resolve the role-play situation. Depending on the level of expertise of students, the basic legal and policy issues in the role play should be set out in writing or on a Power Point slide. The use of a map to help describe the fact situation is generally very useful.

It is important to conduct a de-briefing session after the conclusion of the role-play to evaluate the value of mediation as a dispute resolution tool and to also canvass the environmental law learnings that students have gained from their participation in the exercise.

#### **Methodology 15: Mooting (discussed in Session 13)**

In a mooting exercise, students are asked to prepare arguments for each side of a case, either real or hypothetical. Students are usually divided into groups of four, with two students arguing each side. Students may be asked to prepare a preliminary written brief before they present their oral arguments to a panel of judges, whose role it is to test the arguments presented by asking questions of the “mooters”. Students will learn the formalities involved in presenting legal argument to a court or tribunal and they will also develop skills in legal research. They will also learn to think on their feet, work to a deadline under pressure and work as a member of a team.

#### **Methodology 16: Legal Clinic (discussed in Session 10)**

Law clinics are a valuable practical tool for educating lawyers. They complement traditional law teaching based on lectures and seminars about legal principles with practical skills such as how to draft written arguments for courts, represent clients, conduct interviews, and apply the law to specific situations. Legal clinics enable students to develop problem-solving and decision making skills, and to form ethical judgments. The Environmental Law Clinic provides environmental law students with hands-on experience in working on real legal cases or real-life environmental issues under the close supervision of their clinic professor/lecturer/mentor.

A legal clinic often involves the placement of students in a legal aid office, law firm, formal justice institution or NGOs relevant to their specific clinic, but many environmental law clinics in North America are established and operated from within Law Schools.

Law clinics usually are comprised of advanced level law students who earn academic credits for performing specific tasks such as client representation in the clinic. Students are trained to develop ethical and practical skills and are supervised by a law professor or a lawyer. A very distinctive component of law clinics is the “social justice” element, which provides an opportunity for students to acquire the essential values of the legal profession, such as the promotion of justice, fairness and morality. At the end of the course, the students are asked to reflect the lessons learned during their clinical class (Reflection Component).