Essex Behavioural Science Lab (ESSEXLab) Overview and Lab Policy

1. OVERVIEW

The Essex Behavioural Science Lab (henceforth ESSEXLab) is a state-of-the-art research laboratory available to all researchers at the University of Essex, located in the Centre for Behavioural Science (CBS). The lab's primary purpose is to provide cutting-edge research facilities for the researchers and students that support the production of world-class research, knowledge exchange and impact, the generation of external grant income, and the delivery of transformational education and skills training. The lab opened in 2013 and provides researchers with a purpose-built space to study human judgment, decision-making, emotion, cognition, and behaviour in a controlled environment. This highly interdisciplinary area of research is referred to as Behavioural Science.

Lab Resources

ESSEXLab is essential research infrastructure that provides critical resources for conducting behavioural science research at the University of Essex. ESSEXLab offers valuable resources and facilities to support research activities. The lab currently offers the following resources:

- a. 32 computer terminals (partitioned) for laboratory experiments
- b. 32 Samsung Tablets and 30 iPads for lab-in-field experiments
- c. 32 noise-cancelling headphones
- d. 14 biometric kits, including eye-tracking, GSR (galvanic skin response), EMG/ECG (heart rate monitors), and webcam-based emotion recognition for use during experiments in the lab, integrated through the cutting-edge software package iMotions
- e. A large standing subject pool (around 2,500 subjects) that can be invited to participate in experiments
- f. Research assistance by an experienced laboratory manager and a team of trained student lab assistants serving in applied research placements
- g. Workshops where researchers can interact and get feedback on research designs

Guidelines for Use

ESSEXLab is open to any researcher at the University of Essex interested in conducting behavioural human-subject research. To use ESSEXLab, <u>researchers must agree to the following non-negotiable guidelines</u>:

1. All studies must have received ethical approval.

Ethical approval must be sought and granted from the University of Essex or a researcher's home institution prior to being granted permission to conduct an ESSEXLab study.

2. No use of deception.

Studies may not involve the deception of research participants, even if this deception has received ethical approval.

3. Participants must be compensated financially.

All ESSEXLab participants must be compensated financially based on current rates published by ESSEXLab; class credit and non-pecuniary benefits cannot be used as compensation. We do allow study designs that incorporate payment into the purchase of products or donations, such as to charities.

4. The primary purpose of the research is academic.

We will also consider private-sector use. Specifically, we encourage companies and non-HE organizations to work with researchers on questions that could be examined using ESSEXLab and its resources. Interested parties can contact a researcher directly or email the ESSEXLab team at essexlab@essex.ac.uk for further information.

Most ESSEXLab studies are run in our lab on the Colchester campus, so this lab policy is written with that in mind. All ESSEXLab studies must follow the same application guidelines, but the procedures for study execution will differ depending on the modality of the study. This document provides an overview of the process of applying for, planning and executing an in-lab study. Still, you should always consult the Lab Manager and your assigned ESSEXLab Study Coordinator when planning your study.

Other CBS Support and Uses of the Lab

CBS and ESSEXLab can also support your study in other ways. We can provide additional Lab Assistants for data collection on or off campus (subject to availability), organize workshops where you can get feedback on your research design, and provide research design support on a consultation basis.

The lab is open for a variety of uses, including workshops, demonstrations, and trainings – <u>but not routine teaching activities.</u> For example, instructors may use the lab to show students in their research-oriented modules what lab research looks like, or others may wish to book the lab for a hands-on workshop. Such requests will be considered on a case-to-case basis and can be arranged by contacting the Lab Manager. Please notify the lab at least a month before your planned activities. A booking charge will apply for external users.

Policy Updates

While we work hard to ensure our policy stays up to date to best inform researchers, please note that the judgment of the Lab Manager supersedes any guidelines presented in this document. Appeals may be discussed with the Lab Director.

Contact

To contact the Lab Manager or anyone on the ESSEXLab team for general queries or questions about this document, contact essexlab@essex.ac.uk. Other information and updates are available online at https://essexlab.essex.ac.uk.

2. FOUR TYPES OF STUDIES

There are currently four types of studies that ESSEXLab can support:

In-person studies (Colchester Campus)

The physical lab is in the Social Science Research Centre on the University of Essex Colchester Campus. It can accommodate up to 32 participants (14 for biometric experiments, see below). The lab can also be partitioned into two rooms of 18 and 14 workstations. Previously, cash for payment was kept on-site. As of autumn (2024), we are introducing digital payments via a digital rewards service called Tremendous, replacing cash as the default payment option. In-lab studies are also supported by a team of ESSEXLab Assistants, one of whom will always be present during live studies.

Participants for ESSEXLab studies are recruited from our online subject pool through SONA. Lab Assistants typically handle the recruitment, but by special request, researchers may be allowed to handle recruitment if their study requires a particular sample from outside the lab subject pool.

ESSEXLab workstations can accommodate a variety of software but are preloaded with the most commonly used ones, including zTree (multiple versions), web browsers (for oTree, Qualtrics, etc.), EPrime 2.0 & 3.0, and iMotions (biometric workstations only). Please contact the ESSEXLab staff for the complete list or special arrangements.

ESSEXLab Biometric (Colchester Campus)

Fourteen ESSEXLab PC workstations are equipped with biometric equipment for data collection using eye-tracking, GSR (galvanic skin response), EMG/ECG(Electromyogram), and webcam-based facial expression recognition. iMotions is the primary software used to collect biometric data. It can run alongside other software (e.g., z-Tree or Qualtrics). For details about the equipment or procedures for using the biometric equipment, please contact the ESSEXLab staff.

Online studies

ESSEXLab can also support online studies that use participants from its subject pool. We can support any study for which participants are recruited via a link, such as Qualtrics or oTree. In most circumstances, the lab supports the recruitment of participants only.

ESSEXLab Mobile

The mobile lab consists of 32 Samsung (Android) tablets and 30 iPads. Currently, the mobile lab may be used for data collection in the UK and abroad, but limitations may be placed on the amount of time it may be reserved depending on the number of tablets needed and the location of the data collection. Please contact the ESSEXLab staff for more details.

3. LAB PAYMENT POLICY

<u>Please note</u>: It is a requirement that your participants are provided with a financial incentive. Course credit is not an acceptable reward.

A helpful point for planning your study before you apply is to estimate your payments to participants, but the official runtime of your study for calculating payments will be based on your pilot session. Our current payment policy is as follows:

o Show-up payment:

Participants who arrive in time to take part in the study are entitled to a £5 show-up payment. Participants receive this payment even if the researcher cancels the session less than 24 hours in advance.

o Send-off payment:

Sometimes, researchers will purposefully over-recruit for their sessions. If you send participants off, they need only be paid £5 if they are waiting outside the lab in time to participate.¹

o Participation payment:

Participants should also be compensated at a rate of £10/hr, rounded up to the nearest quarter hour. Example: your study takes 30 minutes – a participant should expect to receive £5 (show-up) + £5 (participation) for a total of £10.

o Variable participation payments:

Some studies (e.g., economic experiments) use variable payments that depend on the outcome of the actions of participants. These are more than acceptable in ESSEXLab, but you must ensure that the average payment for each session aligns with the payment policy above. Participants are still entitled to their show-up payment of £5. That means, in variable payment experiments, no subject should leave the lab with less than £5 after participating in the experiment. The use of variable payments must be indicated on your consent form, recruitment materials, and participants' instructions.

All these payment rules should hold WITHIN experimental treatments/conditions.
 Hence, it is not the case that subjects in a treatment can get, on average, less than the minimum rules, even if subjects in another treatment receive more.

Long sessions:

For experiments that exceed 90 minutes, the minimum show-up payment is £7 for all participants starting the study. Send-off payments at the beginning of the study remain £5.

<u>Please note</u>: Participants must still receive their rewards if sessions end prematurely, or they ask to leave. This includes their show-up payment and participation payment pro-rate (rounded up to the quarter-hour).

Parking compensation:

The ESSEXLab subject pool contains several hundred adults from the Colchester area who commute to the University to participate. In addition to their normal payment, we also offer to compensate them for bus fare or parking upon the presentation of receipt.

Online payments:

See the section below on Online Studies.

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Last Updated: 15 Oct 2024

¹ In the section on attendance, more guidance is offered on when (and when not) to pay a participant that is late.

Mobile study payments:

See the section below on Mobile Lab Studies.

Tremendous – Research Rewards Made Simple

Unless otherwise discussed with the Lab Manager, all payments must be made digitally via the **Tremendous** platform. See Financial Reporting below for more information.

Researchers will be provided with guidance on how to use the platform at the start of their study. Access to Tremendous will be granted and funds for payment uploaded after a successful programming check has taken place and topped up as necessary

Fixed and Variable Payments with Tremendous

Tremendous issues payments via email. For fixed payment studies, researchers can simply upload the correctly formatted attendance list from the session using the provided template.

For variable payments, in order to process the rewards researchers will need to:

- 1. Collect consent, name, email, and workstation number in their digital consent form at the start of each session (ESSEXLab uses Qualtrics for this by default)
- 2. Collect workstation number and a timestamp during main data collection.

This will allow researchers to extract workstation number and payment amount, pair it with name and email, format it into the CSV template, and upload to Tremendous for payment.

Participants should be paid as soon as possible, but no later than the close of business on the day of their session. This is the researcher's responsibility!

All queries from participants about Tremendous may be directed to the lab.

Receipts in Tremendous

ESSEXLab will no longer issue hard-copy receipts in the lab. Receipt of payment will instead be tracked in the Tremendous platform. If you require proof of purchase for grant-reporting, this can be downloaded from your project in Tremendous.

Other Acceptable Compensation

ESSEXLab allows other variants for payment including:

o **Donation**:

ESSEXLab allows researchers to ask participants if they want to donate some of their rewards to a charity or other organization. However, you must make the donation no later than the conclusion of the study. Otherwise, you would be in violation of the lab policy on deception. Additionally, we ask that you provide the lab with receipts for any such donations in case a participant requests to see them.

Purchase of goods:

ESSEXLab also allows researchers to offer participants the opportunity to purchase some tangible goods as part of their study, to be furnished immediately after the session.

<u>Please note</u>: The participants' time must be respected; if you use more time than the participants were informed of, you must provide additional compensation and notify the Lab Manager immediately. Subjects must be given accurate information, and misrepresenting the time needed to participate may be considered deception.

Monitoring of payment policy

To ensure fair compensation, payments must be calibrated through at least one pilot session, which helps estimate the study's runtime and establishes the appropriate average payment for participants.

The researcher is responsible for monitoring payment suitability throughout the study. This includes regularly checking both the actual time participants spend completing the experiment and the average payments they receive. If the average payment falls below the required minimum—whether due to longer-than-anticipated session times or unexpectedly low earnings in studies with variable payments—the researcher should promptly adjust payments for future sessions.

If the researcher neglects to make these adjustments and total participant compensation falls short by the end of the experiment, the Lab Director and Manager may require additional post-hoc payments to participants. Compensation adjustments may vary, such as additional payments to all participants or a larger bonus for a randomly selected subset, ensuring the overall average payment aligns with the required standards.

For any questions about the lab payment policy or potential deviations you would like to incorporate into your study, please contact the Lab Manager.

4. THE ESSEXLAB APPLICATION PROCESS

<u>Please note</u>: ESSEXLab expects applications at least six weeks prior to your first session. Not following this timeline may lead to delays in your data collection.

We work hard to make using the lab as smooth of a process for researchers as possible. This section lays out the roadmap for applying to use the lab, but once you submit your application form (Step 1), the Lab Manager will assign you an ESSEXLab Study Coordinator to walk you through the remainder of the process. We ask that applications for all new studies be completed no later than six weeks prior to when you would like to run your first session. The lab can get very busy; sufficient lead time helps ensure a good experience for everyone, including the lab team and the researchers themselves.

Step 1: Complete the Online Application Form

While we are always available to discuss whether ESSEXLab is a good fit for your study, the process of planning your study will not begin until you complete <u>our online application form</u>. This will give the lab team an overview of your study so that we have all the pertinent information to help you plan it. Once completed, the lab team will be notified and contact you as soon as the Lab Manager has had a chance to review your application.

1.1. Software requests

ESSEXLab workstations can accommodate a variety of software but are preloaded with the most commonly used ones, including zTree (multiple web browsers for oTree, Qualtrics, etc.), EPrime 2.0 & 3.0, and iMotions (biometric workstations only).

Any software requested that is not already available in the lab will need to be installed by ITS and may include data protection review and licensing for the number of workstations that will be used if the University does not already have a site license. Except in extraordinary circumstances, ESSEXLab will not purchase software licenses for researchers. Additionally, ITS asks for four months' notice to install new software, so it is essential this information is included in your lab application. Even within our 6-week window, delays to reporting software needed may delay your study. Please plan accordingly.

Step 2: Wait to Be Assigned a Study Coordinator

The Lab Manager will review your application and assign you a Study Coordinator. Our study coordinators are student Lab Assistants who have been trained in lab procedures, study planning, and working with participants. They are a great resource and are there to help you run your study. They will assist you with uploading your supplementary documentation, scheduling your lab orientation, programming check, pilot, and all your sessions, and recruiting participants. Finally, they will ensure that you have a Lab Assistant and a trained volunteer (if available) to help with your data collection.

<u>Please note</u>: Treat your study coordinators with respect! They are there to help move your project forward. If you experience any difficulties working with them, please speak with the lab manager.

Step 3: Log on to Basecamp

As soon as your application has been approved, you will receive an invitation to log on to Basecamp from your Study Coordinator.

Basecamp is our study-management software. It is intended to help keep all the documents and communication relevant to your study in one place. An overview of Basecamp is provided when a project is set up for your study, but among other tools, it includes a complete to-do list for the planning of your study from the perspective of the lab. Your study coordinator will help you walk through these.

Initially, only the researcher, Lab Assistants, and Lab Manager have access to the Basecamp project, but others can be granted access as necessary (e.g., additional research team members).

Step 4: Upload Supplementary Study Documentation

While the Lab Manager tentatively approves your study while reviewing your lab application, several key pieces of information are needed for final approval before your study goes forward. These documents help us establish that your study has received ethical approval and is in line with ESSEXLab policy (e.g., does not use deception; pays participants sufficiently; etc.). All studies must receive approval from the Lab Manager before data collection may begin.

<u>Please note</u>: ESSEXLab expects to receive your supplementary documentation no later than four weeks before your first session. Any scheduled sessions will be considered preliminary and potentially subject to cancellation until this documentation is received.

For the Lab Manager to approve the study, researchers must upload copies of the following to their Basecamp project at least four weeks before you would like to conduct your first session:

4.1. Ethical Approval

Your study must have received ethical approval from your department, school, or the University of Essex Ethics Committee. More information can be found through the Research Enterprise Office.

<u>Please note</u>: ESSEXLab may impose stricter ethical limitations than those approved by the researcher's institution.

4.2. Digital Participant Consent Form

Unless your ethical review states that you have been granted a waiver of consent, you must obtain consent from your participants before they can participate in your study.

Where consent could previously be obtained in writing, it now must be obtained digitally through Qualtrics surveys before the start of your experiment. Please take this into account when requesting ethical approval for your study. The reason for this switch is that to pay subjects digitally, we need to collect other information from subjects digitally, and it is efficient to immediately also gather consent at that stage. This will also lower the administrative burden on the lab of dealing with hardcopy receipts.

ESSEXLab recommends basing your consent text on the standard consent template from the Research Enterprise Office, but typically, any consent form that has received ethical approval may be used. In addition to the standard text indicating compensation, the use of variable payments must be indicated on your consent form, recruitment materials, and participant instructions.

<u>Please note</u>: ESSEXLab leadership takes the protection of subjects' rights and anonymity very seriously. Any suspected breaches of subjects' rights must be reported to the Lab Manager immediately.

4.3. Study Session Protocol and Participant Instructions

Please provide a brief overview of your study, including descriptions of any experimental treatments and how assigned to treatment condition will be conducted. Please also include a walkthrough for

how a typical session will proceed including setup, participant arrival and intake, stimuli, wrap-up, and session reset.

These are required in advance so that the Lab Manager can ensure there is no deception. Ethical approval may be granted to studies that use deception, but such studies may not be run in ESSEXLab, use the mobile lab, use the biometric equipment, or recruit participants through the ESSEXLab subject pool.

Further, this helps lab assistants to understand what is required of them, as studies vary in their requirements and approach.

4.4. Email Recruitment Text

Please provide us with a brief description of your study for participants. At a minimum, please include information regarding the study activities (i.e. what participants will be doing), expected payment, and expected duration, as well as the name and contact information of the researcher. In the first instance, we will include this in our weekly participant digest.

4.5. [For EXTERNAL USERS] Contract or Institutional Agreement

External users are encouraged to speak to the Lab Manager before compiling and sending their documents. External users must request a quote and guidance on contracting and payment to use the lab. Additional requirements or co-authorship may also be needed for non-academic organizations to run an experiment.

Step 5: Receive Approval and Begin Study Planning

After all your documentation has been received, it will be reviewed and approved by the Lab Manager within ten business days. Meanwhile, your Study Coordinator will help you begin the next steps for running your study, which are detailed in the next section.

<u>Please note</u>: If you change the participant instructions after the Lab Manager has approved them, you must get them approved again.² If you do not, it will be considered a violation of lab policy, and your experiment slots will be cancelled.

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² We understand researchers may want to make minor adjustments to instructions before the experiment takes place; as long as these do not represent major changes to the design or protocol, they do not need to be reported.

5. RUNNING AN ESSEXLAB STUDY

We want your study to run as smoothly as possible. At this point, your study should have been approved, and you are ready to start planning it. There are several additional requirements to be completed before you run your first session, and your Study Coordinator will help walk you through them. This will include:

- 1. A lab orientation
- 2. A programming check
- 3. A full-session pilot with live participants

Step 1: Lab Orientation

To conduct a study in the lab, we require all researchers to attend a brief training session with your Study Coordinator or the Lab Manager **at least a week before your pilot session**. These sessions typically last for 30-60 minutes, during which the lab staff will walk you through each step of running a session in the lab. We will also do the following:

- o Give you access to the lab on your Essex ID [must be done by the Lab Manager].
- o Give you access to Tremendous [must be done by the Lab Manager].
- o Give you booking rights on Skedda [once your pilot is successfully completed]
- o Provide an overview of the lab's payment policy and procedure.
- o Provide an overview of the lab's attendance policy.
- o Check your access to the participant database.
- (If desired) You can also set up your software and conduct your programming check at this time.

For more experienced researchers, we may offer an abbreviated review or waive the requirement for a lab orientation entirely; however, if you have never used the lab before, lab orientation is mandatory.

Step 2: Scheduling the Lab

As of Autumn 2024, scheduling for your study will predominantly go through the Skedda system. Skedda is a booking tool that allows researchers to self-book their studies once they have complicated preliminary project setup with their study coordinator. It is subject to several limitations to prevent over-booking:

- You can self-book sessions **up to six days before** a desired session time.
- o The lab opens at 9AM and sessions may start from 10AM. All activities in the lab must end by 6PM, which includes wrap-up activities such as paying participants, tidying up, etc.
- You may only book 4 days per week and 10 days per month.

If your study has special requirements, your study coordinator is able to bypass Skedda's restrictions. However, this should only be done with the lab managers permission.

Your study coordinator may also reach out to you to see if you'd like to pick up additional time, should any open timeslots remain in the upcoming week. Please pay close attention to Basecamp for notifications.

<u>Please note</u>: Sessions should only be booked when there is a genuine intention to use the lab; mass pre-bookings of sessions are not allowed. Please cancel any sessions one week in advance where you do not reasonably expect to be able to run your study.

Step 3: Programming Checks and Pilot Sessions

To ensure that your study proceeds smoothly, we require several checks for your study ahead of actual data collection. This helps to make sure that your study is road-ready; we know from experience that both programming checks and pilots help to ensure that your software is functioning properly and that

the study protocols will lead to smooth data collection. Furthermore, the pilot session will also be used to determine the official runtime of your study.

3.1 Programming Check

<u>Please note</u>: Programming checks should be conducted at least two weeks prior to your first "live" session.

You will schedule time for your Study Coordinator (and the Lab Manager, if necessary) to meet you in the lab to install and test your software. This includes the actual code (e.g., zTree, EPrime) that you will actually use during data collection.

While the Lab Assistants are able to provide some assistance, we recommend you bring sufficient colleagues, students, or friends, so you have a large enough group to effectively test the software. Alternatively, subject to availability, we can invite ESSEXLab volunteers to act as participants during this programming check. These are students who have signed up to help out with an interest to learn more about research in the lab.

3.1 Pilot Session

<u>Please note</u>: Pilot sessions should be conducted at least one week prior to your first "live" session.

A pilot session is a single session filled with live participants. We recommend you recruit as participants as you plan to use during a normal session. We have found in the past that programmes and/or protocols may run fine with a handful of participants but may be strained when in use by a full lab. Ideally, this session runs without issue and the pilot data will be usable for your project. In other words, ideally the pilot session is your first live session, conducted a week ahead of the other live sessions to allow for corrections and changes if necessary. For example, if the pilot session shows that the experiment is longer than planned, payments will need to be adjusted to compensate participants for their time.

<u>Please note</u>: Special arrangements may be made for visiting researchers and for lab veterans, but you should expect to conduct a pilot session unless otherwise discussed with the Lab Manager. Other forms of pilots are welcome – such as using graduate students or colleagues – but should not replace a pilot session with participants.

Step 4: Participant Recruitment

The lab staff will take care of recruiting your participants roughly a week before any scheduled sessions, including your pilot session, via the online recruitment database, SONA. However, you will also be given access to a researcher account on SONA to monitor this process. Participants will receive invitation through a **weekly digest of available sessions** that goes out Thursday afternoon and will be able to sign themselves up for sessions.

The lab offers some pre-screening services if you have specific sample requirements for your study. SONA has pre-collected criteria on which we can base your recruitment. Please discuss these with your Study Coordinator or the Lab Manager when planning your study.

External samples are allowed in the lab, should the ESSEXLab subject pool not fit your needs, but this should be discussed with the Lab Manager in advance. Additionally, the researcher will be responsible for any logistical concerns of helping participants to reach the lab if applicable.

4.1. Targeted recruitment

If sessions for your study are not filling up following the weekly SONA digest, you can discuss targeted recruitment with your study coordinator. The larger your sample and the longer your study has gone on, the more likely this may be necessary. Please do not request this of new studies, as the weekly digest is intended to reduce email impact for members of the subject pool.

Step 5: Prepare for Your Lab Sessions

Before running your session, it is good to get prepared. At this point, your software is ready and, on the computers (see earlier steps). You have tested it and found it to work. Before going into the lab to conduct sessions with subjects, however, it is good to consider some logistics. Here we give you the important points.

5.1. Lab Attendance Policy

ESSEXLab operates on a policy of 24-hour notice, which goes both ways. For participants, if researchers cancel a session less than 24 hours in advance, they are still entitled to their show-up payment.

For researchers, if participants cancel less than 24-hours, or do not show at all, participants will be marked as a no-show (note: this is reviewed by the lab for exceptional excuses). The lab monitors and removes participants with excessive numbers of no-shows.

The attendance is marked by the lab staff using the lab participant database. However, it is the researcher's responsibility to check that this has been done after each session. A participant may be marked as "Participated", or "No-show".

If a participant is late for the session, they can be allowed to participate a researcher's discretion, but 1) other participants should be given priority, and 2) their late entrance should not adversely affect other participants. If a participant is late for the session, they are not entitled to the £5 show-up fee.

The lab staff handles all communications with participants, including rescheduling and cancellations. Should a participant contact you directly, please forward their communication to essex.ac.uk.

5.2. Assistance in the Lab

Running a study by yourself is typically very difficult, especially in a lab environment with over thirty participants arriving for each session. There are several forms of support available to you to help run your study, including our trained team of Lab Assistants, lab volunteers, and provisioning study support yourself.

Lab Assistants

Except in extraordinary circumstances, researchers should never be in the lab alone. The lab is run by a team of student Lab Assistants, one of whom will always be on hand to assist with your study. The Lab Assistants have been trained on lab procedures and have experience interacting with participants and running sessions in the lab. Please heed their advice and guidance.

<u>Please note</u>: Neither your Study Coordinator nor any other Lab Assistant should be expected to run your study for you unsupervised.

The Lab Assistants are there to provide advice, guidance on lab policy, logistical support, and assistance with troubleshooting. They are not there to run the study on behalf of researchers.

Should there not be a Lab Assistant present when you arrive, please contact your Study Coordinator and the Lab Manager via Basecamp. If there is no Lab Assistant present 30 minutes before your study, please contact the Lab Manager directly via telephone.

Please note:

When using cash, Lab Assistants should also never be given access to the safe unless authorized directly by the Lab Manager.

Similarly, Lab Assistants do not have access to issue payments in Tremendous. Do not leave your interface unattended.

This is not because of lack of trust, but to shield them from liability. Should you leave the lab, even temporarily, the cashbox should be returned to the safe and your computer should be locked.

Lab Volunteers

ESSEXLab also has a pool of trained lab volunteers, which exists to provide students with a diverse experience in a lab environment. Lab volunteers will not have detailed knowledge of lab procedures, but they do receive a baseline training before they are allowed to help in the lab. They can assist with a variety of tasks including passing out participant materials, helping to direct participants, watching for questions, and helping to distribute payments. They can also serve as subjects during your programming check.

By default, our volunteer coordinator will attempt to assign one volunteer to every session to help with participant intake and to watch for questions. If you have specific instructions for them or wish to opt out of volunteers being assigned to your study, please contact your Study Coordinator.

If your study would benefit from more than one volunteer, please let your Study Coordinator know. If you would like to opt out of having a volunteer present, please contact the Lab Manager.

Your Own Students and Research Assistants

Researchers may also wish to have the assistance of their own students or colleagues, which is generally acceptable. However, this cannot be a substitution: a Lab Assistant will still need to remain present. The Primary Investigator also takes full responsibility for any students who assist with a study, and must ensure that they similarly do not have access to safes or Tremendous.

While it is acceptable for PGR students to operate in the lab without faculty supervision, PGT and Undergraduate students may not be asked to supervise a study on their own without the express permission of the Lab Manager. Additionally, we encourage faculty to think carefully before putting students in an unsupervised position and request that, even in the case of PGR students, a faculty supervisor is present for the first several sessions and reachable in the event of incident.

Please note: ESSEXLab Assistants and Volunteers are undergraduate and PGT students. They are there to help you but are not responsible for your experiment. We expect researchers to treat the Lab Assistants and Volunteers with respect and observe basic etiquette. ESSEXLab has a strong commitment to protecting the students working in the lab and reserves the right to cancel sessions of a researcher who does not observe these rules.

5.3. Printing of Materials

ESSEXLab is taking steps to reduce the amount of paper used in the lab as much as possible. As of 1 October 2024, consent and receipt forms are digital by default using Qualtrics and Tremendous, respectively. Researchers may, if necessary, print off physical instructions but they are encouraged to reuse them as much as possible.

It is the researcher's responsibility to ensure any materials are printed prior to the session. The lab printer should not be used for this purpose; it is only for the printing of participant rosters and short-notice emergency printing.

In preparation for their sessions, researchers should either:

- o Print the materials themselves in their own academic department using their own printing quota, or;
- Arrange for the Study Coordinator to print the materials prior to the session. Naturally, the
 researcher should ensure that the material that is uploaded to Basecamp is up to date and
 uploaded in a timely manner. Please give your study coordinator at least several days' notice,
 as not all Lab Assistants are online every day.

Step 6: Running Sessions in the Lab

Guidance on running sessions in the lab will be provided during your lab orientation. ESSEXLab also has several documents posted in the lab summarizing the process, as well as an FAQ embedded in your Basecamp project and a separate Researcher Wiki that provides detailed answers to common questions.

Here is a brief overview of what is expected during your sessions:

- Arrive no later than 30 minutes before your session is to start to provide the Lab Assistant with instructions and help to prepare for the session.
- Take attendance as participants enter the lab.
- o Ensure that participants complete digital consent forms before the start of the session.
- Process study payments on Tremendous no later than the end of business for all sessions that day. Under no circumstances should researchers leave participants unpaid at the end of the day.
- o Check in with your Study Coordinator to flag any problems arising during the day. Major problems should be reported to both your SC and the Lab Manager as soon as possible.
- o Leave the lab tidy, including binning any coffee cups, snack wrappers, etc.

Additionally, if cash is used, researchers must:

- O Supervise the cash count in the Researcher Safe (#1) by the LA on duty before your first session of the day.
- O Distribute payments to participants while they are in the lab, collect receipt forms, and check the receipt forms are completely filled out before participants leave the lab.
- o Count the cash in Researcher Safe (#1) after your last session of the day.

A Lab Assistant and often a volunteer will assist you with these tasks. Lab Assistants are trained in these processes and are a valuable resource to ensure your session runs smoothly, however, you are ultimately responsible for ensuring these expectations are met.

<u>Please note</u>: ESSEXLab has a no food, no drink policy. While researchers and Lab Assistants may have these in the lab control room, we ask that food and drink remain there, and that the policy is enforced for participants and researchers alike in the lab.

Step 7: Financial Reporting

As noted above, ESSEXLab payments will be done digitally through the Tremendous platform. Information is available on your Basecamp project to walk you through issuing payments to your participants.

7.1. Cost Codes and Project Budgets

Your payments will be charged to the cost-code you provided. We will do our best to assist you, but it is the researcher's responsibility to track their spending relative to their project budget!

7.2. Non-participant costs

Extra lab assistants, consumables not covered by the lab, lab fees (for external users), and any other expenses should be discussed with the Lab Manager in advance. These will also be recharged to your cost code or invoiced (for external users).

7.3. Receipts

A record of study payments may be downloaded from Tremendous. Please check your Tremendous project after issuing payments to ensure that information has been captured correctly and that there have been no errors in uploading (e.g. in the formatting of participant names, etc.)

If you need further guidance, please contact the Lab Manager.

Step 8: Follow-up

At the end of your study, summary files of your digital consent forms and receipts will be added to your Basecamp project for your reference.

Additionally, we ask that ESSEXLab researchers expect to be contacted by a member of the lab team to track research outputs after the completion of the study. We welcome researchers to report any outputs sooner by contacting the lab at essexlab@essex.ac.uk.

8.1. Existing Physical Consent Forms and Receipts

As of 1 October 2024, ESSEXLab has moved digital with receipt and consent forms.

All physical consent and receipt forms already held in ESSEXLab must remain in the lab until a digital copy has been made. We will do this either 1) at the end of your study or 2) the end of the academic year, whichever comes first. We do not currently have space to store hard copies longer than this, so they will be offered to the researcher and then securely destroyed. If you require copies of these documents sooner, please do NOT remove them from the lab; notify your study coordinator and copies will be made for you.

ADD SOMETHING HERE ABOUT UNDERSPEND

6. RUNNING AN ESSEXLAB STUDY WITH BIOMETRIC EQUIPMENT

The lab has fourteen workstations which are equipped with biometric equipment for data collection using eye-tracking, GSR (galvanic skin response), EMG/ECG (Electromyogram), and webcam-based facial expression recognition. iMotions is the primary software used to collect the biometric data, however it is also capable of running along with some other software (e.g., z-Tree, Qualtrics, etc). Please contact the lab if you have questions about software integration.

When completing your initial study application, you can select that you would like to conduct your study with ESSEXLab Biometric. From there, the process for setting up and running your biometric study is the same for a regular study in ESSEXLab, with only a couple additional pieces of information to note.

iMotions Licenses and Programming:

ESSEXLab has 14 iMotions Licenses. Researchers (especially Mac users) may need to come to the lab to program their iMotions studies. You can contact your Study Coordinator to arrange a time to do this. During periods when the lab is very busy, it may only be possible to access the lab outside of regular hours, in which case a station can be set up for you to work on. Analyses only licenses are available for working with your data offsite, but tests of iMotions experiments must be conducted in person in the lab.

On the day of each of your study sessions, you will need to arrive to the lab **45-minutes** ahead of your first session to make sure you and the Lab Assistant have enough time to set up and test all needed equipment. During this time, if there are any issues, please ask the lab assistant to notify your Study Coordinator who will decide whether the issue can be resolved by our biometrics lead or Technical Lab Assistant. If you require immediate assistance, ask the lab assistant to notify the Technical Lab Assistant and Lab Manager directly.

It is highly recommended to ensure sufficient research support is available in the lab, beyond the one Laboratory Assistant who will be there by default. This can either be done by contacting the Lab Manager to hire additional Lab Assistants or by enlisting other research assistants yourself.

Any damage to any of the equipment should be reported immediately to the Lab Manager.

7. RUNNING AN ESSEXLAB MOBILE STUDY

Currently the mobile lab consists of 32 Samsung Tab A7's and 30 iPads. The Mobile lab can be used on the Colchester campus of the University of Essex. However, to use the lab off campus, special approval is required by both the Lab Manager and Lab Director.

Mobile Lab Application Process

The application process for running an ESSEXLab Mobile study is largely the same as above. You will need to provide the same materials and will still be assigned a Study Coordinator.

If the Lab Manager and Lab Director approve use of the Mobile Lab, one is required to submit a written security plan that will then be approved by the Lab Manager. The security plan should cover:

- How and where the lab will be used.
- Where the lab will be stored when not in use.
- The list of members of the research team will use the lab.
- The name of the person responsible for the lab while it is on loan.

If the tablets will be set-up in a static location, they should whenever possible be attached using security cords; lab equipment should never be left alone in a publicly accessible location. If one is using 3G or mobile connectivity, the researcher is responsible to cover those costs and setup; ESSEXLab will not pay for the lab to have mobile access. If you are instead using WiFi, each tablet will need to be manually configured. Advanced notice is required to request Wi-Fi credentials from ITS for activities on campus.

Compensation

If you are using the ESSEXLab subject pool, the expectation for compensation for participants in a mobile experiment is the same as in an ESSEXLab study. If you will recruit your own participants, payment should be discussed with the Lab Manager. Tremendous may be used for studies conducted with the mobile lab.

Software

New software will need to be provided by the researcher if it's not already available through ITS.

Software cannot be installed on the tablets or laptop without explicit permission from the Lab Manager and ITS must give approval.

You will still be expected to conduct a programming check.

Damage and Liability

Any damage to a mobile lab component should be reported immediately to the Lab Manager. If the equipment has been used under unusual circumstances or in a way not approved by the Lab Manager, the researcher may be required to pay the University.

The University's travel policy will cover the mobile lab, but if your study will take place off-site, this should be discussed during advance planning with the Lab Manager.

Researchers are still responsible for keeping appropriate receipts and holding the data in a GDPR complaint manner that also follows the requirements laid out in the ethical approval.

10. RUNNING AN ONLINE EXPERIMENT

To run an online experiment, researchers still need to submit all documents, work with their Study Coordinator to send out recruitment emails and be responsible for data and keeping receipts as described above. However, show-up fees are not required for online experiments. The £10 per hour compensation fee still applies, though. It can be paid via the Tremendous platform.

11. OTHER CONSIDERATIONS

Required Costs

There is no cost to using the physical lab or mobile lab for researchers at Essex. If an internal researcher is planning to use the lab for extended time and is funded by an external grant, some payment for use and the Lab Assistants' time is appreciated.

For external Academic Researchers and NGOs, beside Lab Assistant's time, there is also a per hour cost for renting ESSEXLab or having access to the ESSEXLab subject pool. If you are interested in renting ESSEXLab, please contact the Lab Manager for a quote.

Programming and Experimental Design Support

ESSEXLab has worked with many researchers and programmers. If you are interested in hiring a programmer email essex.lab@essex.ac.uk naming the program you would like to use and wage information (amount of time, offer of hourly wage, etc.) and, if we know of a programmer, we will try to put you in touch. We cannot currently project manage programming for academic projects, though we hope to offer this service in the future.

If you are a non-HE institution interested in working with an Essex researcher to design an experiment please also email essex.lab@essex.ac.uk with a brief paragraph of the research questions and research project you have in mind. If we can match you with a researcher, we will send through your contact details.

Data Storage

All files must be kept in your assigned researcher folder on the lab server. Files elsewhere on the server (e.g., in the zTree directory) will be cleaned periodically and your data may be lost.

After your study is finished, the lab team will encrypt and store research files in your archived Basecamp project for at least one year in case the researcher should need to access them. After a year from the completion of your study, these files are subject to deletion.

Civility

ESSEXLab is a shared resource. It is expected that all users will respect the facility and must leave the lab in good order after each session: having chairs in the correct location; clearing away any debris; etc. If the lab is found in state of disarray the researcher will be barred from using the lab again.

If any equipment is damaged during research sessions, report to your Study Coordinator and the Lab Manager immediately. Researchers are expected to compensate ESSEXLab in full for the repair or replacement of any damaged articles or equipment.

If any computers malfunction during a research session, work with the Lab Assistant to fix the issues and/or contact the Lab Manager immediately so that ITS can be notified to fix or replace the workstation.

Please note that researchers will not be penalized for software problems or naturally occurring computer hardware failures.

12. KEY POINTS REPEATED

o Check out www.essex.ac.uk/essexlab for information.

- Refer to "Conduct a Study" -> "Conduct your Study" for a step-by-step guide of how to apply for and run your study.
- You need enough **money** to pay:
 - [External only] the hourly lab rate.
 - £5 show-up fee for each subject (£7 for experiments exceeding 1.5 hours).
 - £10 per hour for each subject, not including the show-up fee.
 - Additional funds for any over-recruitment requested. Recruited participants who do not participate are entitled to a £5-pound show-up fee.
 - Any additional Lab Assistants you require beyond the first.
- Use **Basecamp** to communicate with your Study Coordinator. Pay close attention to your Basecamp project.
- All documents must be submitted via Basecamp four weeks before you want to conduct your study.
- O You cannot book a session slot until the Lab Manager has approved your application so the earlier you do this the better.
- o At least **two weeks before your study**, you should conduct your <u>lab orientation</u> (if applicable) and your programming check.
- o At least **one week before your study**, you should conduct a <u>full-session pilot.</u>
- Once your pilot is booked in by your Study Coordinator, you can use Skedda to self-book your remaining sessions.
- O During data collection, you (the researcher), or a designated colleague or PGR student, must attend the lab 30 minutes (45 minutes for biometric studies) ahead of your first session's start time
- You must **obtain consent from your participants digitally** using a digital consent form on Qualtrics or similar.
- You must **pay your participants by the close of business** each day that you run sessions, using our digital payment platform **Tremendous**.