

ETPLAS DOPS – example Handling and restraint of Zebrafish



Explanation of Levels, and General rubric, for all procedures

In each Directly Observed Practical Skills (DOPS) sheet, there are “assessment criteria” (in the left-hand columns) that are the aspects of the task used to assess the trainee’s stage of learning or competence. The columns represent the supervision level of the trainee, according to the Report on Training & Supervision, published by the EU Working Group on Training in 2013.

The sections below comprise the “general” and “procedure-specific” assessment criteria for the procedure and should all be used during the assessment. They are coloured to emphasise the different assessment areas that make up the task (such as compliance, animal, procedure) and shaded to reflect level.

During the assessment, for each row, highlight the text that best aligns with the trainee’s performance. The trainee’s overall supervision/ competence level is equivalent to the lowest level that’s highlighted. For example, if you’ve highlighted text in columns that indicate performance at Levels 3, 1 and 0, then the trainee is assessed as requiring Level 3 supervision overall. Indicate this in the summary section, and complete the feedback to assist the trainee’s learning.

These DOPS assessments should be used together with the notes for assessors (below), which explain more about how to use the matrix.

EU WG document supervision level					
	BEGINNER		INTERMEDIATE		COMPETENT
	level 4	Level 3	Level 2	Level 1	Level 0
Supervisor's role	<i>Supervisor present: direct supervision & advice</i>	<i>Supervisor aware and available for rapid intervention</i>	<i>Supervisor aware & available to attend</i>	<i>Supervisor aware and available remotely</i>	<i>Competent: Trainee has sufficient skills to work independently</i>
About the Trainee	Begins training: Listens to supervisor; watches demonstration	Shows or does the task on a simulator (dummy, sedated, or dead animal).	Has carried out procedure successfully on one animal	Has carried out procedure successfully on a few animals	Has carried out procedure on several animals; can find solutions to issues encountered
Trainee's Knowledge	Demonstrates knowledge of legal constraints	States what equipment is required for this procedure.	Follows protocol for procedure; Relates likely adverse effects on animal and how to monitor for these.	Provides rationale for study materials/ equipment/ route used	Explains purpose of the study being carried out; its adverse effects and suggests refinements

Procedure-specific assessment criteria - <u>COMPLIANCE</u>			
	BEGINNER	INTERMEDIATE	COMPETENT
Knowledge	<ul style="list-style-type: none"> * States reasons for using non-aversive methods of capture for zebrafish and potential effect of fish stress on study *States that nets and equipment must be sterile and washed 	<ul style="list-style-type: none"> * Interprets tank label to identify fish * Explains that care should be taken with net mesh size * States basic requirements of good handling (e.g. avoiding damage to skin/ scales) 	<ul style="list-style-type: none"> * Reflects on alternative methods of handling
Health & Safety	<ul style="list-style-type: none"> * Follows instructions on safe working practices *Wears appropriate PPE, including gloves 	<ul style="list-style-type: none"> *Applies safe working practices; minimizes spillage of water on floor. *Leaves workspace clean and tidy after use. 	
Legal authorities	<ul style="list-style-type: none"> *States how supervision requirements & legal authorities apply to trainee as they carry out this procedure with live animals in facility. 	<ul style="list-style-type: none"> *Explains the authorities and/or local processes that are required before starting procedure *Completes appropriate records 	<ul style="list-style-type: none"> * Explains requirement for maintenance of competence and CPD

Procedure-specific assessment criteria - <u>ANIMALS</u>			
	BEGINNER	INTERMEDIATE	COMPETENT
Handling	<ul style="list-style-type: none"> *Watches demonstration of catching & handling fish * Counts fish in tank correctly * Catches fish out of tank, using net 	<ul style="list-style-type: none"> *Catches fish within 3 attempts and transfers rapidly to labelled holding tank * Uses correct net size and mesh for age of fish and size of tank. 	<ul style="list-style-type: none"> *Catches fish smoothly, at first attempt *Demonstrates dexterity in handling
Welfare	<ul style="list-style-type: none"> *Organises area to allow efficient working and minimize fish time out of water; Tanks close together *Prepares small (0.5L) receiving tanks /pots with system water 	<ul style="list-style-type: none"> *Minimises time that fish spends out of water *Handles fish gently throughout 	<ul style="list-style-type: none"> *Demonstrates smooth workflow through procedure
Return to tank	<ul style="list-style-type: none"> * Counts fish in tank correctly when returned * Dispose of dirty tank and net appropriately, according to local protocols. 	<ul style="list-style-type: none"> * Recognises/ explains potential adverse effects (e.g. scale damage) and actions to be taken. 	

Professional behaviours	
Communication	* Communicates clearly and concisely regarding procedure * Demonstrates consideration of wider team. * Explains preparation and thinking ahead.
Empathy	* Handles animal gently; * Demonstrates understanding of value of living animal.
Knows own limits	* Demonstrates awareness of own limits and when to seek advice. * Open to receive advice/ guidance.
Engagement	* Engages with tutor and learning opportunity

Feedback for trainee:

Things done particularly well		
Learning points		
Action points		
Formative Only <input type="checkbox"/>	Trainee Not yet competent <input type="checkbox"/>	Trainee Competent <input type="checkbox"/>
Assessor Name : _____ Signature : _____	Trainee Name : _____ Signature : _____	
DATE:		

GLOBAL RATING: COMPETENT

CONTINUE SUPERVISION

END

How to use these DOPS assessment sheets

Aim of the assessment:

The aim of the assessment is to determine the level of supervision that a trainee requires, as s/he learns a new technique, then eventually becomes competent to do it by themselves. These DOPS sheets set out the task's assessment criteria, to help the assessor to carry out the evaluation of the trainee.

The DOPS sheets set out in columns the levels of supervision, which are taken from the EU Training Working Group document and range from Level 4 (just starting training) to Level 0 (competent). However, it is challenging to separate performance at 5 different levels, so, for simplicity, the trainee is regarded as either "Beginner" (levels 4, 3), "Intermediate" (Levels 2, 1) or Competent (Level 0). The commentary ("rubric") for assessment is graded into 3 sections, accordingly.

How do these assessment sheets work?

This document states the competency levels in terms of the supervisor's actions. However, in accordance with modern pedagogical theory, the table sets out instead the assessment in terms of the level at which the *student* is working, as this is actually what the trainer/ assessor is evaluating.

In order to carry out a procedure, the trainee is required to master a number of separate elements, such as knowledge of the legislation, the ability to handle the animal, some personal skills (such as communication and preparation) as well as the technical parts of the task itself.

These different aspects of competence are listed in the horizontal rows, with descriptions of the way that the trainee might behave, or the skills that they demonstrate. As you move from left to right, the level of competence increases, which is reflected in the complexity of trainee behaviours shown.

The DOPS sheets therefore consist of a *matrix of behaviours* that the trainee would show in each of the assessment criteria, at each of the supervision levels, as they learn and develop proficiency.

Why are some points not specific?

Some of the criteria are deliberately left a little 'open' to allow for the discretion of the assessor. For example, the DOPS sheets state that, in order to be assessed as competent (Level 0) a trainee may be required to carry out a simple procedure on "many" mice. "Many" might typically be 20 or more animals.

However, if the trainee were carrying the same procedure using a large animal (e.g. minipig), rather than a mouse or zebrafish, or carrying out a more complex procedure (e.g. surgery) then the number of animals required to attain competence might be different, due to availability of the

animals and frequency that the procedure is done. It is left to the trainer and assessor to decide on the most appropriate task replication to assure competence.

How do I use the sheet?

Observe the trainee carrying out the task.

For each horizontal row, highlight the text that best matches the behaviour that the student shows as s/he works. It may be that s/he will be working at different levels in the various criteria. This is quite normal! For example, a trainee may communicate very well (Level 1) but not yet have grasped the technique for holding a mouse (Level 3).

The overall assessment of the student is at the LOWEST level of competence that you have highlighted on the matrix.

This assessment sheet can be kept with the student's training record and show their progress as they train and learn new skills.

Repeat the assessment as the student progresses. Once the student is working at the Level 0 (no supervision required) in all the criteria (horizontal rows) then they can be deemed competent to work unaided.

