	Theory			
Traditional theory: students that play out of tune do so because they don't				
		the correct tones		
		This theory supposes that students will fix tonal flaws if they hear them		
		☐ Do they? 🤔		
		☐ Fix with singing		
	Music as a "language", examined			
		□ Sapir-Whorf hypothesis: "structure of a language affects its speakers'		
		world view or cognition"		
		☐ The half step is the foundational interval of western music		
		☐ Theory: chromaticism must be taught almost immediately, otherwise they		
		will not develop a clear concept of notes beginning with the same letter,		
		esp. notes played with the same finger		
		□ Notes are letters, measures are words, phrases are sentences		
		Learn the complete alphabet from the beginning Behavioral/Athletic theory: all tonal flaws must be manifested physically		
	_	☐ Whether or not they heard the mistake, they played the mistake		
		☐ Theory: Students do hear tones accurately		
		☐ All students can match pitch; failure to do so is a result of speed		
		Therefore we must teach instrumental strength/dexterity/speed		
		☐ Imagine playing "Mary Had a Little Lamb"		
		☐ Did you imagine it in first position?		
		☐ Beginners consistently tested with high accuracy on a tonal discrimination		
		арр		
		☐ Little correlation between the most accurate students and their		
		instrumental tonal accuracy		
		☐ Fix the instrumental physics		
		Map the fingerboard		
		Callibrate daily to growing bodies		
☐ Theory: in personal practice, most students ignore fine tuning and focus on				
	phrase cohesion			
		"Diligent practice" is achieved by performing the complete phrase without		
		crashing		
	_	☐ Most students stop practicing once they can do this		
	_	Any flaw in an orchestra's skillset is a product of insufficiently small or incomplete		
П	Featur	scaffolding es/Goals		
_		Scalable for all levels		
☐ Scalable for all levels ☐ Beneficial to every row of the orchestra				
		Students learn the music faster/more accurately		

		Makes more challenging music more accessible		
	Drawb	acks		
	☐ Requires systemic buy-in			
 De-emphasizes key primacy/circle of fifths 				
		Proprie	etary/not widely accepted	
	Seque	nce		
		1 Beginners		
		Focus on setup/technique		
			Learn each finger individually	
			Teach finger independence from the beginning	
			☐ Separate 1 & 2 from 3 & 4	
			□ Focus exercise and drills on 3 & 4	
			Finger strength workouts	
			□ Will also fix "collapsed wrist"	
			D Major 1 octave (2 quarters per note)	
			G Major 1 octave	
			D Dorian 1 octave	
			D Chromatic 1 octave	
		Interm	ediate MS through HS NV	
			D Major 1 finger 1 octave 1 string scale	
			☐ For conceptual clarity each note in the scale is a new position, all	
			instruments	
			First finger High D is Vii position	
			Transpose to other strings	
			Modifiers (2 finger 1 octave 1 string scale, etc.)	
			D Chromatic 2 octaves	
			G Chromatic 2 octaves	
Scale modifiers (rhythm, bow control, vi			Scale modifiers (rhythm, bow control, vibrato, etc.)	
			Drill exercises	
			Drill specific tones and intervals	
			□ G#	
			□ Eb to G#	
			Learn to spell the chromatic scale using only naturals and sharps	
			Learn to spell the chromatic scale using only naturals and flats	
_			t sequence at the beginning of every year for every level	
	•		quence	
	☐ Learn the piece one measure at a time		•	
	ш		everything required to execute the measure in performance	
	_		Clean from the beginning	
			play-throughs early on	
		_	Continuing after a mistake reinforces the mistake	
		ш	In rehearsal/practice, focus on correct repetitions	
			Create smaller steps to celebrate and reinforce success	

			Always start with what they can do (all students)			
	Tone Callibration Sequence					
		4 quar	ter notes of the target note			
			Slide up and down between repeats: "callibrate"			
			Recognize any success: "last two were on target, focus on hitting the			
			bullseye on the first note"			
			Fix "lipping" into the pitch			
		4 quar	ter notes on the launching note			
		2 quar	ter notes on the launching note/2 quarters on the target note			
		Repea	t 2 and 2 with specific performance parameters			
		Search	n for the source of the tonal flaw and callibrate using those notes			
			Shifts			
			String changes (string gear)			
			Changes in finger position within a position			
			☐ E natural to Bb			
			Must move finger and string			
		Do not	move forward until the tonal flaw is sufficiently addressed			
			Most or All?			
			nd return notes to repertoire until original flaw is indistinguishable			
	Phrase	e Callibi	ration Sequence			
			e Tone Callibration Sequence to callibrate the first note of every measure			
			al texture"			
			Tune each chord individually			
			Recognize the importance of each section when their tone is important			
			within the chord			
			□ Accidentals			
	_		□ Suspensions, etc.			
			CS to callibrate individual chords			
		-	ne phrase with only the first note of each measure four times/two times			
		"skelet				
		u .	First and last note of every measure			
	_	□ "\^/	Every beat of every measure, etc.			
	_		shed" Sequence			
		_	Two quarter notes			
			Two eighth notes Long short on the same note			
		_	Short long on the same note			
			Long short on different notes			
		0	Short long on different notes			
		0	Triple Patterns: SSL, LSS, SLS			
	П		to repertoire			
			ces and unexpected sources of tonal flaws			
_		Shiftin	•			
	_		y			

ı Tempo			
□ Slow			
Pizzicato: practice pizzicato sections arco and tune			
Check form	when returning to pizzicato		
Piano Dynamics: "	eft hand must always be 100% strong"		
Separate le	ft side from right side, then combine		
Practice yo	ur warmups at difference dynamic levels		
🗀 Арр	ly the Sapir-Whorf hypothesis to dynamics		
	□ pp-p-mp-mf-f-ff		
	MIDI recognizes 127 levels of dynamics		
C String/low string	3		
Check setu	p/positioning daily		
Callibrate C	string as part of daily warmups		