**Tbale. Evaluation index system for the teaching of GSTM maps.**

| Appraise  metric | Guidance level quality standards |
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| Comprehensiveness | 1 Points: Teacher only presents or draws a mind map, but the mind map presented fails to extract all elements from the material |
| 2 Points: Teachers present or draw mind maps only, showing mind maps that sort out all elements of the material from a natural and human perspective, but do not go beyond the given material |
| 3 Points: The teacher, in presenting or drawing a mind map, guides students through the act of explanation to sort out elements in the material from a natural and humanistic perspective and to extrapolate from known elements to unknown elements from the perspective of the elemental system, going beyond the given material, but without teacher-student interaction. |
| 4 Points: Through a question and answer format, in which the teacher asks students to say what the teacher draws, students are guided to sort out elements in the material from both natural and human perspectives, and to extrapolate from known elements to unknown elements from the perspective of the elemental system to go beyond the given material. |
| 5 Points: Learning activities such as mind mapping, sharing and mutual evaluation are carried out by setting up group activities. The teacher has evaluation feedback based on the comprehensiveness full mark criteria in the process of students sharing their mind maps, pointing out deficiencies and revising them. Teacher guides students to sort out the elements in the material from natural and human perspectives and to extrapolate from known elements to unknown elements from the perspective of the elemental system to go beyond the given material. |
| Hierarchy | 1 Points: Teacher only presents or draws a mind map, but the relationship between the elements of the displayed mind map is not clear in terms of dominance and priority. |
| 2 Points: The teacher presents or draws a mind map only, showing a mind map that identifies the dominant factors around the topic and expands multiple layers under the analysis of the dominant factors. |
| 3 Points: The teacher presents or draws a mind map in which students are guided through the act of explanation to identify the dominant factors around the topic and to label them with symbols, and to expand multiple levels under the dominant elements in a logical sequence of cause and effect, time, and from shallow to deep. |
| 4 Points: Through a question and answer approach, in which the teacher asks students to speak and the teacher draws. Referring to the act of guiding students through explanation to identify the dominant factors around the topic and labelling them with symbols, and expanding the degree of multiple layers under the dominant elements in a logical sequence of cause and effect, time, and from shallow to deep. |
| 5 Points: Learning activities such as mind map, sharing and mutual evaluation are carried out by setting up group activities, teachers have evaluation feedback based on hierarchical full mark criteria in the process of students sharing their mind maps, pointing out deficiencies and revising them. Teacher guides students to identify the dominant factors around the topic and labelling them with symbols, and expanding degrees of multiple levels under the dominant elements in a logical sequence such as cause and effect, time and from shallow to deep. |
| Relevance | 1 Points: Teacher presents or draws a mind map only, but shows a mind map that does not show elements and connections between elements with connecting lines, or shows one connection from within a natural or humanistic perspective only. |
| 2 Points: The teacher presents or draws a mind map only, showing a mind map that shows multiple links between elements and elements from within a natural or human perspective around the topic. |
| 3 Points: The teacher presents or draws a mind map in which students are instructed through the act of explanation to represent the connections between elements through connecting lines from the perspective of the interaction of natural elements. The interaction of human elements and the interaction of natural and human elements, reflecting the idea of moving one to the whole body. |
| 4 Points: Through a question-and-answer format, in which the teacher asks students to speak and the teacher draws, students are guided to represent the connections between elements through connecting lines from the perspective of the interaction of natural elements. The interaction of human elements, and the interaction of natural and human elements, reflecting the idea of moving one hair to affect the whole body. |
| 5 Points: Learning activities such as mind mapping, sharing and mutual evaluation are carried out by setting up group activities. The teacher has evaluation feedback based on the full standard of relevance in the process of students sharing their mind maps, pointing out the shortcomings and revising them, guiding students to represent the connections between elements through connecting lines from the perspective of the interaction of natural elements. The interaction of human elements and the interaction of natural and human elements, reflecting the idea of moving one hair and The idea of the whole body being involved. |
| Dynamicity | 1 Points: Teacher presents or draws a mind map only, but presents a mind map that analyses only one stage in the region or phenomenon or does not analyse temporal change. |
| 2 Points: The teacher presents or draws a mind map only, showing a mind map that analyses multiple stages of the region or phenomenon in terms of time and analyses the temporal changes in the region, phenomenon or elements. |
| 3 Points: The teacher, in presenting or drawing a mind map, instructs students through the act of explanation to use the timeline to extract time points or to analyse the characteristics of the region, phenomenon or element over time in terms of the 3 states of time: past, present and future. |
| 4 Points: Students are instructed to use the timeline to extract time nodes or to analyse the characteristics of regions, phenomena or elements over time by using the 3 states of time from the past, present and future through a question and answer approach in which the teacher asks students to say what the teacher has drawn. |
| 5 Points: Learning activities such as mind mapping, sharing and mutual evaluation are carried out by setting up group activities. The teacher has evaluation feedback based on dynamic full mark indicators in the process of students sharing their mind maps, pointing out deficiencies and revising them. Teacher instructs students to use the timeline to extract time nodes or to analyse the characteristics of regions, phenomena or elements over time from 3 states of time: past, present and future. |
| Regionalness | 1 Points: The teacher only presents or draws a mind map, but the mind map shown only obtains the internal characteristics of the region from a geographical location perspective and does not analyse regional differences and connections. |
| 2 Points: Teacher presents or draws a mind map only, showing a mind map that analyses the internal characteristics of different places or regions from the perspective of geographical location, finds different effects of an element in different regions or compares the differences of elements in different spaces or finds the effect of an element in a region on another region (one of the three perspectives is sufficient) |
| 3 Points: Teacher, in the process of presenting or drawing a mind map, instructs students through the act of explanation to use the regional box in conjunction with the location of each region to carry out an intra-regional analysis to obtain regional characteristics. To compare the different influences produced by the same element in different regions to obtain regional differences, and to discover inter-regional connections based on regional differences from the perspective of complementarity of strengths and weaknesses or spatial variation of elements. |
| 4 Points: Through a question and answer approach, in which the teacher asks students to speak and the teacher draws, students are guided to use the regional box to carry out intra-regional analysis in relation to the location of each region to obtain regional characteristics. To compare the different effects of the same element in different regions to obtain regional differences, and to discover inter-regional links based on regional differences from the perspective of complementarity of strengths and weaknesses or spatial variation of elements. |
| 5 Points: Learning activities such as mind mapping, sharing and mutual evaluation are carried out by setting up group activities, teachers have evaluation feedback based on regional full mark criteria in the process of students' mind mapping, pointing out deficiencies and revising them. Teacher guides students to use the regional box to carry out intra-regional analysis in relation to the location of each region to obtain regional characteristics, comparing different influences produced by the same element in different regions to obtain regional differences, based on Regional differences identify inter-regional links in terms of complementarity of strengths and weaknesses or spatial variation of elements. |